

# Manual for Training of Public School Employees

In the

Administration of Insulin and Glucagon

Office of Special Education and Student Services  
Division of Instruction  
Virginia Department of Education

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**PREFACE**

**One of the most common chronic diseases of childhood is diabetes, second only to asthma. The American Diabetes Association in a position statement, Care of Children with Diabetes in the School and Day Care Setting states, “there are about 125,000 individuals below the age of 19 diagnosed with diabetes in the United States. There are 13,000 new cases of diabetes diagnosed annually in children. The majority of these individuals attend school and need knowledgeable school staff to provide a safe school environment.”**

The 1999 General Assembly passed Senate Bill 889 to ensure that in each public school in Virginia where students diagnosed with diabetes mellitus are present, at least two staff members are trained to assist with the administration of insulin and to administer glucagon in emergency situations. The Board of Nursing was tasked to develop and revise as necessary in coordination with the Boards of Medicine and Education, guidelines for training school employees in the administration of insulin and glucagon.

Those guidelines were adopted by the Virginia board of Nursing on July 20, 1999, accepted by the Virginia Board of Medicine in July 1999, and adopted by the Virginia Board of Education on July 1999. See Appendix A.

The purpose of this manual is to provide school divisions with basic information regarding diabetes mellitus, provide specific information about training needed to provide care to students with diabetes at school, provide guidance in selecting appropriate training personnel, and provide continuity in training. The Department of Education, Office of Special Education and Student Services developed this manual to accompany the approved guidelines.

The intended audience for this manual is any school staff member: food service worker, counselor, teacher (s), school health nurse, bus drivers, principals who may during the school day interact with a student diagnosed with diabetes mellitus.

This manual is intended to assist school divisions, in collaboration with parents and health care providers, in providing care to students during the school day with diabetes. Appropriate care during the school day can enhance opportunity for optimal academic performance.

# INTRODUCTION

The 1999 Virginia General Assembly passed Senate Bill 889, which amended and reenacted the *Code of Virginia* to:

1. Allow any employee of a school board with authorization by a prescriber and appropriately trained to be exempt from liability when assisting with the administration of insulin or administering glucagon in an emergency.
2. Allow school board employee to refuse to obtain training in the administration of insulin and glucagon without fear of being disciplined, placed on probation, or dismissed.
3. Ensure that in school buildings of 10 or more instructional and administrative employees there are at least two or more employees trained in administration of insulin and glucagon if there is a student with diabetes in attendance.
4. Encourage local school boards to request of school health advisory boards procedures relating to children with acute or chronic conditions.
5. Allow any employee of a school board authorized by a prescriber with written parental permission and trained in administration of insulin and glucagon to administer insulin or glucagon.
6. Require the Board of Nursing to develop and revise as necessary, in coordination with the Boards of Medicine and Education, guidelines for training school employees in the administration of insulin and glucagon. The guidelines to be completed by September 1, 1999, and made available to local school boards for a fee not to exceed the cost of publication. Chapter 570 *Code of Virginia* is found in Appendix B.

The Executive Director of the Virginia Board of Nursing chaired the committee to draft the guidelines on June 10, 1999. The members of the committee are as follows:

- Janet Younger, R.N., M.S.N., Ph.D., Member of the Board of Nursing and Professor of Nursing at Virginia Commonwealth University School of Nursing.
- Harry Beaver, M.D., Member of the Board of Medicine.
- Kathryn Mulcaly, R.N., M.S.N., C.D.E., Director of Inova Diabetic Center in Northern Virginia, Immediate Past President of The American Association of Diabetes Educators.
- Grace Johnson, R.N., M.A., M.S.N., Assistant Executive Director, Board of Nursing
- Nancy Ford, R.N., M.P.H., School Health Nurse Consultant for the Virginia Department of Health.
- Gwen Smith, R.N., M.S.N., School Health Specialist for the Virginia Department of Education.

The Virginia Board of Nursing on July 20, 1999 adopted the guidelines, accepted by the Virginia Board of Medicine in July 1999, and adopted by the Virginia Board of Education on July 22, 1999.

The developed and approved guidelines provide a framework for local school divisions to implement the policy established in the *Code of Virginia*. In order to ensure that local school divisions are adequately prepared to administer insulin and glucagon and to provide continuity in the training, the Virginia Department of Education, Office of Special Education and Student Services developed this manual to accompany the approved guidelines.

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## In the Administration of Insulin and Glucagon

**NOTE:** To make the distinction between the guidelines as developed and approved by the Boards of Nursing, Medicine, and Education and the manual developed by the Department of Education, the guidelines will be bolded.

### Authorization

***Code of Virginia.*** Chapter 570 of the 1999 Acts of the Assembly, An Act to amend and reenact §§ 8.01-225, 22.1-274, 22.1-275.1, 54.1-2904, 54.1-3001, 54.1-3005, and 54.1-3408 of the *Code of Virginia*, relating to care of public school students diagnosed with diabetes. A copy of Chapter 570 is found in Appendix B.

### Training Guidelines

#### I. Parameters of Training

##### A. Qualifications of instructional personnel. The trainer must be:

1. **A registered nurse or licensed physician with recent training or experience in the management of diabetes mellitus in children.**
2. **Trained in relevant sections of laws and regulations, such as Individuals with Disabilities Educational Act (IDEA) and Occupational Safety and Health Act (OSHA).**

**NOTE:** When possible this should be a registered nurse, certified diabetic educator or an Endocrinologist assisted by a school representative knowledgeable of school policy, OSHA laws, and IDEA regulations.

##### B. **The course shall continue until competency is demonstrated, but shall not be less than four hours.**

##### C. **Retraining shall be completed at least yearly and last not less than one hour.**

##### D. **Training shall be documented and shall include skills checklist, instructor's name, trainee's name, date of training, and documentation of competency of trainee to administer.**

- ❖ Sample forms of a training skills checklist and other appropriate documentation are included in Appendix C and C1.

**NOTE:** A physician's authorization is necessary to obtain insulin and regular syringes, and sterile

water/saline vials for demonstration and training purposes with appropriate school staff.

## **II. Content of the Training Curriculum**

### **A. The need to have authorization for treatment initially received and updated annually from the following:**

- 1. The student's parent or guardian.**
- 2. The treating physician, who may further authorize the parent or guardian to alter dosages as necessary.**
  - Local school board policy regarding authorization for the administration of prescribed medications will need to be followed.
  - Physician may be requested by the school to put in writing the authorization for the parent or guardian to alter dosages as necessary.
  - All authorization for insulin to be given at school must be put in writing by the health care professional (physician or nurse practitioner).

**NOTE:** Based on the legislation passed by the 1999 General Assembly, the school administration, the student's diabetes medical management team, and the parent or guardian will have to determine for students unable to administer their own insulin, what is involved in "assisting in routine insulin injections" and "assisting in the administration of insulin." It must also be determine to what extent an unlicensed assistive personnel may be permitted to "assist in the administration of insulin injections" during the school day.

### **B. The requirement for an individualized health care plan for each student to be initially prepared and updated annually.**

- The individualized health care plan must not be mistaken for an Individualized Education Program.
  - The individualized health care plan provides a method for communicating to teachers and staff interacting with the student with diabetes the care needed on a daily basis at school. The individualized health care plan also provides a foundation for documentation of care provided to the student diagnosed with diabetes during the school day.
- ❖ A sample plan of an individualized health care plan for a student with diabetes is included as Appendix D and D1.

**C. Rights and responsibilities of the student, the physician, the parent or guardian, the administrator, and the trainee which are consistent with existing laws and policies of the local school board and with relevant state and federal laws to include, but not be limited to the following:**

**1. Individuals with Disabilities Educational Act (IDEA);**

Vessey, Jackson and others in *Primary Care of the Child with a Chronic Condition*, (1996, Chapter 5), reviewed the laws regarding the education of children with chronic health conditions. The United States Congress in 1975 passed Public Law 94-142, The Education for All Handicapped Children Act (now Individuals with Disabilities Education Act or IDEA) as an educational bill of rights for children 5 to 18 years of age. The basic rights guaranteed to students with disabilities included the following.

- A free appropriate education for all children.
- An education in the least restrictive environment based on the child's needs.
- An assessment of needs that is racially and culturally unbiased and is given in the child's native language or mode of communication.
- An individualized education program (IEP) prepared by a team of professionals that includes parents.
- Due process and a procedure for complaints to ensure the rights of the individual.

In 1986, 1990, 1991, and 1997, Public Law 94-142 was amended; however, the basic rights of children with disabilities did not change. These rights continue to provide for protection against discrimination for children with disabilities, including those with diabetes.

Under the category of "other health impairment" (OHI), diabetes is listed as a chronic health condition (American Diabetes Association, Your School and Your Rights, September 1999, [on-line] Available: <http://www.diabetes.org>).

**2. Section 504 of the Rehabilitation Act of 1973:**

All individuals with disabilities are provided basic civil rights protection against discrimination in any program or activity receiving federal financial assistance, which includes public schools under Section 504 of The Rehabilitation Act of 1973.

Parents and school officials to provide necessary accommodations for the student while at school can develop a 504 plan.

Such a plan may be appropriate for a child with diabetes. The plan would outline specific care for the student with diabetes while at school or could address an appropriate school lunch program (American Diabetes Association: Clinical Practice Recommendations, 1999, Care of Children with Diabetes in the School and Day Care Setting).

### **3. Occupational Safety and Health Administration (OSHA)**

The OSHA/VOSH 1910.1030 Bloodborne Pathogens Standard; Final Rule was issued in December 1991, to reduce the occupational transmission of infections caused by microorganisms sometimes found in human blood and certain other potentially infectious materials.

OSHA requires that a Bloodborne Pathogens Standard exposure control plan is required in all Virginia schools, as of 1992. This plan provides specific procedures for the management of sharps and other items contaminated with blood and body fluids. Contaminated needles and other contaminated sharps shall not be bent, recapped or removed. Shearing or breaking of contaminated needles is prohibited.

Sharps containers must be closable, puncture resistant, labeled or colored-coded, and leakproof on sides and bottom and remain upright throughout use. Sharps containers must be easily accessible to personnel and located as close as possible to the immediate area where sharps are used (OSHA, 1991, p.23-24).

Contaminated disposable sharps and disposable lancets used for monitoring blood sugars are to be discarded in the sharps container immediately after use (OSHA, 1991, p. 23-24).

Disposable (latex or vinyl) gloves shall be worn when performing a procedure that can be anticipated that the employee will have hand contact with blood. Single use gloves are replaced as soon as practical when in contact with blood (OSHA, 1991, p. 18-19).

### **4. The Drug Control Act (Chapter 34 of Title 54.1 of the Code of Virginia).**

The Drug Control Act of the Code of Virginia was amended by the 1999 General Assembly as follows:

Pursuant to a written order or standing protocol issued by the prescriber within the course of his professional practice, such prescriber may authorize, with the consent of the parents as defined in §22.1.1, an employee of a school board who is trained in the administration of insulin and glucagon to assist with the administration of insulin and glucagon to a student diagnosed as having diabetes and who requires insulin injections during the school day or for whom glucagon has been prescribed for the emergency treatment of

hypoglycemia. Such authorization shall only be effective when a licensed nurse, nurse practitioner, physician or physician assistant is not present to perform the administration of the medication (p. 9).

## **D. Overview of diabetes mellitus:**

### **1. Definition:**

Wong (1999) describes diabetes mellitus, as a chronic condition in which the insulin producing cells are unable to produce insulin. Because of this partial or complete inability to produce insulin, the body is unable to use and store carbohydrates, fats and protein. Without insulin, the body cannot change food into energy (p. 1861-1862). Turney in Children's Hospital Diabetes Education Program Curriculum emphasizes that diabetes is not the result of eating sweets and is not contagious (1999, p.3).

Insulin is metabolized and stored in the pancreas, an organ behind the stomach. The *Virginia Guidelines for Specialized Health Care Procedures*, (Virginia Department of Health, 1996), states that:

Insulin is used by the body to metabolize and store glucose. Normally the body stores glucose in the liver and muscles or changes it into fat. Only a small amount of glucose remains in the blood. When there is too little insulin, the body is unable to store the glucose normally. Therefore, the glucose stays in the blood and the blood glucose level rises. As the blood glucose rises, some of the glucose leaves the body through the urine (p. V- 18).

Glucose can be measured in the blood, however, monitoring urine for glucose is no longer an acceptable routine testing method. However, when blood glucose is very high (hyperglycemia), parents may request the student do a simple urine test for ketones. Ketones develop in the body when the body begins to burn fat for energy rather than glucose, producing waste products call ketone. Ketoacidosis can lead to coma and must be treated immediately (American Diabetes Association, Children With Diabetes: Information for Teachers and Child-Care Providers, September, 1999, [on line] Available: <http://www.diabetes.org>).

As the blood glucose rises, this result in hyperglycemia, which is defined as excessive amounts of glucose (sugar) in the student's blood and urine. Blood glucose levels are measured in milligrams per deciliter (mg/dl) (ADA, Children With Diabetes: Information for Teachers and Child-Care Providers, September 1999). Normal blood glucose ranges from 80 to 120 mg/dl (Turney 1999, p. 4).

### **2. Types of diabetes:**

Diabetes can be classified as Type 1 or Type 2. Type 1 or insulin dependent diabetes mellitus typically (IDDM) can occur at any age, but typically occurs in children or young adults. Type 1 diabetes occurs because the pancreas produces little or no insulin. Students with Type 1 diabetes will need daily insulin shots to assist in controlling the glucose (sugar) in their bodies in order to stay alive (Turney, 1999 p. 3).

Turney states that students with diabetes can experience either hypoglycemia (low blood glucose) or hyperglycemia (high blood glucose)(1999, p.3).

According to the American Diabetes Association, "Position Statement on the Care of Children with Diabetes in the School and Day Care Setting," Type 1 or insulin dependent diabetes mellitus represents approximately 125,000 children under the age of 19 in the United States. Insulin-dependent diabetes mellitus is the most common metabolic disorder in children (ADA, 1999).

Type 2 diabetes typically occurs in adults, usually over the age of 30, however; an increase in children is being noted. In Type 2 diabetes, the pancreas is producing some insulin but not enough or is not effective in lowering blood sugar. Type 2 diabetes may be associated with obesity and may be treated with diet only, pills, or insulin (Turney, 1999, p.3). Family history is a significant factor.

## **E. Principles of medication administration:**

Each local school division should have its own school board policy for the administration of medication in school. These policies must be considered and reviewed for appropriateness when there is a student diagnosed with diabetes mellitus in the school.

### **1. Medication authorization**

The recommendation for medication authorization in Virginia public schools is described in *Virginia Specialized Health Care Procedures Manual (VDH 1999)*.

The use of all prescriptive medications should be authorized in writing by a licensed prescriber that includes physician, or nurse practitioners. The written authorization should include:

- The student's name
- Licensed prescriber's name, telephone number, and signature
- Name of the medication
- Dosage
- Time of day to be given

- Anticipated length of treatment
- Diagnosis or reason the medication is needed (unless reason should remain confidential)
- Serious reactions that the student might experience
- Any serious reactions that may occur if the medication is not administered
- Special handling instructions

Any changes in the original medication authorization require a new written authorization and a corresponding change in the prescription label. Faxed authorizations may be acceptable as long as there is a signed parental consent for the medication authorized by fax. Changes in medications via the telephone should be taken only under extreme or urgent circumstances. Telephone changes should be taken directly from the licensed prescriber by a licensed nurse only if this is consistent with the local school division policy. The telephone authorization for changes in medications should be recorded on the student's record and be a one-time-order only. A telephone authorization should be followed by a written order from the licensed prescriber within 24 hours.

Medication authorizations should be received on a standardized authorization form. However, authorizations on stationary or prescription pads from the licensed prescriber, or an acceptable label on the prescription container are acceptable if the parents/legal guardian sign and date the form/label (p. III, 1-2.).

- ❖ A sample Authorization/Parental Consent for Administering Medication form is included in Appendix E.

The **Guidelines for Training School Employees in the Administration of Insulin and Glucagon** as developed and approved by the Virginia Boards of Nursing, Medicine and Education, list the “five rights of administering medication” as a safety precaution when administering medication to a student.

- **Right name of student**
- **Right medication**
- **Right dose**
- **Right time**
- **Right route (by mouth, injection, etc.)**

## 2. Medication administration

The *Virginia Guidelines for Specialized Health Care Procedures* recommends that “when a licensed registered nurse, or licensed practical nurse are present in the school, the nurse will administer the insulin or glucagon when needed. Should the licensed nurse not be available, the principal must assume responsibility for arranging the administration of medication” (p. III-3).

Appropriate training by school staff in the administering of insulin and glucagon is required by Chapter 570 of the *Code of Virginia* for a child diagnosed with diabetes that is attending school.

According to the *Virginia Guidelines for Specialized Health Care Procedures*, when an unlicensed assistive personnel is assigned to administer the insulin or glucagon, “the medication label should be reviewed by the school health nurse, principal, or principal’s designee prior to giving the first dose” (p. III-3).

The *Virginia Guidelines for Specialized Health Care Procedures* also recommends that the “principal or school nurse should ensure that:

- medication is given correctly and documented appropriately
- the appropriate forms are completed prior to giving a medication to include authorization and parental consent
- the medication is properly labeled and stored properly in a secure, safe place” (p. III-3).

### **3. Documentation of administering medication**

“When medication is brought to school, the amount of the medication in the container should be noted” (p. III-4). When the medication is insulin or glucagon it should be noted that the vial is unopened. If opened the medication should not be accepted. The *Virginia Guidelines for Specialized Health Care Procedures* states that, “each time a medication is administered a record should be kept of who administered, to whom it was given, the name of the medication, the time it was given, the dose given, the manner in which it was delivered” (e.g., by subcutaneously or intramuscular) “the effects of the medication, and any side effects or reactions” (p. III-4).

### **4. Parent/guardian responsibilities**

According to *Virginia Guidelines for Specialized Health Care Procedures*, prior to administering a medication (insulin or glucagon) at school, the parent should:

- Provide the school with a written authorization from licensed prescriber which includes: the student’s name, name of the medication,



dosage, hours to be given, method by which it is to be given, name of the licensed prescriber, date of the prescription, expected duration of administration of the medication, and most importantly, possible toxic effects and side effects. For any changes in medication, the parents must provide a written authorization signed by the licensed prescriber.

- Provide the medication in a container labeled as required.
- Provide a completed parental consent form
- Administer the first dose of any new medication, unless the medication is an “in school” medication only
- Transport medication to school so that the student is not responsible for bringing medication to school.

Parents should pick up unused medication within one week of the expiration date. After one week the school nurse, principal, or the principal’s designee should destroy the medication (p. III-5).

Medication given on a daily basis throughout the year should be destroyed the last day health office personnel are at school. It is advisable that another staff member witnesses the destruction of the medication. Parents should be notified and given sufficient time to pick up the remaining medication, two weeks prior to the end of school is a suggested time frame (Virginia Department of Health, *Virginia Guidelines for School Health*, 1999, p. 259).

## **F. Therapeutic management of diabetes:**

Each student is unique with different personalities and characteristics. Each student and family circumstance is different. The diabetes medical management team will individualize the student's treatment plan.

### **1. Nutrition:**

Students with diabetes have the same basic nutritional needs, as students not diagnosed with diabetes; however, more attention is given to carbohydrate content. Students with diabetes need no special foods or supplements, but usually follow a meal plan that is tailored to the specific needs of the individual child. Parents will provide school personnel the types of foods that must be avoided (American Diabetic Association, August 1999, Information for Teachers and Child Care Providers [on-line] Available, <http://www.diabetes.org/ada/teach2.asp>).

Wong states that sufficient calories are needed to balance daily expenditures for energy and for requirements for growth and development. "Unlike the child

without diabetes, whose insulin is secreted in response to food intake, insulin injected subcutaneously has a relatively predictable time of onset, peak effect, duration of action, and absorption rate depending on the type of insulin used." Therefore, the timing of food intake must correspond to the time and action of prescribed insulin (1999, p.1867).

In addition, Children's Hospital protocols for students with diabetes, suggests the school lunch in the usual portions is acceptable. Parents can assist their child in making appropriate lunch choices if they are given the school lunch menus in advance:

- Fresh fruit or fruit packed in natural juice is allowed
- Desserts are not eliminated; however, they must be calculated in the meal's carbohydrate allowances (1998, p.3).

<b>Nutritional Management in Type 1 Diabetes Mellitus</b>	
<b>GOAL</b>	
Attain metabolic control of glucose and lipid levels	
<b>OBJECTIVES</b>	
1. Appropriate meal and snack planning:	
<ul style="list-style-type: none"> <li>• Achieve a dietary balance of carbohydrates, fats, and proteins.</li> <li>• Provide extra food during periods of exercise</li> <li>• Time meals consistently to prevent hypoglycemia.</li> <li>• Avoid high-sugar foods to prevent hyperglycemia.</li> </ul>	
2. Develop an appropriate insulin regimen and physical activity program.	
<ul style="list-style-type: none"> <li>• Administer insulin as directed before eating.</li> <li>• Increase insulin dose or activity level when extra food is eaten.</li> <li>• Decrease insulin dose during periods of strenuous activity.</li> </ul>	
(Wong, 1999, p. 1868)	

The American Diabetes Association recommends that snacks and meals **MUST** be eaten at times recommended by the physician and in relation to when insulin is prescribed. The student with diabetes does better if he or she eats meals and snacks about the same time every day. It is also critical that the student be allowed time to finish eating lunch and snacks (ADA, Your School and Your Rights, September 1999).

Extra snacks may be necessary on days when physical education classes occur.

When parties occur in the school during holidays and special times, parents/guardian should be notified so they can decide with their child what foods can be eaten. Schwartz suggest the following for potential classroom snacks: bread sticks, pretzels, bagels with low fat cream cheese, muffins, crackers with peanut butter or cheese filling, graham or saltine crackers, cereal, milk, frozen yogurt, fruit sorbet, fruit, fruit kabobs, and popcorn (Schwartz, Actions for Food Service Personnel, September 1999, [on-line] Available: [steph.schwartz @ childrenwithdiabetes.com](mailto:steph.schwartz@childrenwithdiabetes.com)).

Frequently in early childhood, kindergarten through 5<sup>th</sup> grade classes, food items are used to assist in meeting an education objective. The teacher will need to discuss the choice of food item with the parent or guardian prior to the class to determine appropriateness for use with the student with diabetes.

Students with diabetes must be given free access to the water fountain and to the bathroom whenever they feel the need (ADA, August 1999. Care of Children with Diabetes in the School and Day Care Setting. Diabetes Care [on-line], Available: <https://www.diabetes.org/diabetescare/supplement199/s94.htm>).

Of particular importance, the student with diabetes should be encouraged to participate with his or her peers in all school activities (Schwartz, Actions Food Service Personnel, 1999, [on-line] Available: [steph.schwartz@childrenwithdiabetes.com](mailto:steph.schwartz@childrenwithdiabetes.com)).

## **2. Exercise:**

Exercise is important and encouraged for all students including students with diabetes. Exercise is never restricted unless indicated by another health condition. Recess and physical education classes can present a challenging time for students with diabetes as exercise, like insulin, works to lower blood sugar (Wong, p.1867-1868).

When blood sugars are extremely elevated, exercise can actually cause further elevation. The student's physician, diabetes medical management team or parent or guardian can provide guidelines for exercise when blood sugars are elevated (Schwartz, Before School Starts, September 1999, [on-line] Available: [steph.schwartz@childrenwithdiabetes.com](mailto:steph.schwartz@childrenwithdiabetes.com)).

Schwartz emphasizes that physical education teachers and coaches must be aware of students with diabetes in their classes and be familiar with signs, symptoms and treatment of low blood sugar, hypoglycemia, to be alert for an insulin reaction.

An additional snack can be eaten prior to participating in strenuous exercise. If physical education or recess is immediately before lunch, students with diabetes

should be allowed to eat a snack before participating. A good rule of thumb is 15 grams of carbohydrate for each 30 minutes of exercise. This information will be included in the student's individualized diabetes care plan developed by the parent/guardian, the student's diabetes care team and the school (American Diabetes Association, September 22, 1999, Children With Diabetes: Information for Teachers and Child-Care Providers, [on-line] Available: <http://www.diabetes.org>).

Students with diabetes should be allowed to carry emergency glucose to treat hypoglycemia, especially if classes or activities will be some distance from the classroom or health office where the student's supplies are maintained.

Parents can provide glucose tablets to physical education teachers, coaches, and classroom teachers to use in case of emergency. Glucose tablets are not easily confused with candy and are not controlled drugs (American Diabetes Association, Children With Diabetes: Information for Teachers, September, 1999 [on-line] Available: <http://www.diabetes.org>).

### **3. Medication:**

Students with diabetes according to Turney, do "not make insulin which is the hormone that helps the body use and store carbohydrates, fats and proteins. To manage this condition, the person takes insulin two or more times a day and monitors the blood glucose levels a minimum of four times a day. The insulin usually will be taken at home under the supervision of the family. Blood glucose monitoring is done before meals and at bedtime and any time there are suspected symptoms of high or low blood sugars" (1999, p. 1).

"The goal of insulin therapy is to maintain near-normal blood glucose levels while avoiding too frequent episodes of hypoglycemia" (Wong, 1998, p. 1866).

Students who inject insulin prior to lunch will need additional time before lunch to give their injection. The student will need a clean place to administer their insulin, either the health office or classroom (American Diabetes Association, Children With Diabetes: Information for Teachers, September, 1999, [on-line] Available: <http://www.diabetes.org>).

According to the *Virginia Specialized Health Care Procedures Manual*, should the student need to have insulin on a routine or as needed basis at school, the parent will provide a written authorization from the physician and parental permission. This authorization will include the name of the insulin, the dosage, the time the insulin is to be given and the method for administering the insulin.

Parents will provide necessary insulin, syringes, sharps container, and other supplies needed to complete the injection (1996, p. III, 1-4).

### **4. Support of Independence:**

**a. Support the student's developing independence through assisting with self-care**

School age student may check and record their blood sugars and may draw up and possibly administer some insulin injections. Students with diabetes may communicate with peers and adults regarding diabetes needs.

In “Information for Parents and Guardians,” Schwartz (1999) states that while at school, the student with diabetes should be allowed to:

- a. perform blood sugar monitoring with assistance as needed.
- b. have the supplies available as needed to treat low blood sugar.
- c. treat low blood sugar when needed.
- d. be allowed time for blood sugar checks and eating all meals and snacks.
- e. give or receive insulin when indicated.
- f. be allowed to participate fully in all the same activities with children who do not have diabetes (Stephanie Schwartz, Information for Parents and Guardians, September, 1999, [on-line] Available: [steph.schwartz@childrenwithdiabetes.com](mailto:steph.schwartz@childrenwithdiabetes.com)).

**b. Support the student's healthy response to diabetes**

**G. Monitoring of Student:**

**1. Using insulin pump:**

Some students with diabetes use an insulin pump instead of taking injections. The insulin pump is an electromechanical device approximately the size of a pager and can be worn on a belt or a shoulder holster. The pump consists of a syringe to hold the insulin, a plunger, and a mechanism to drive the plunger. A small tube (catheter) is attached to the pump and inserted under the skin to deliver insulin continuously. It is designed to deliver fixed amounts of fast acting insulin continuously. Students will need to give themselves insulin to cover any and all carbohydrates they eat or to lower elevated blood sugars (Wong 1999, p.1866-67).

According to Turney, the student or parent, using aseptic technique changes the catheter and needle every 48 to 72 hours using aseptic technique. For contact sports and swimming, the pump can be removed as long as blood sugars are carefully monitored. Other methods of insulin administration may be necessary (Turney, 1999, p.34).

The pump is equipped with an alarm should the catheter become occluded,

develop a low battery, or develop an uncontrolled delivery of insulin (Wong 1999, p. 1866-67).

## **2. Insulin Pen Injector:**

Pen injectors make it easy for students to do their own injections in the classroom or health office. It is safe to inject even through the clothing. A clean place must be provided for students to do the injections. (American Diabetes Association: September 1999, Children with Diabetes: Information for Teachers and Child-Care Providers).

No refrigeration is needed after the first use; however, pens not in use should be refrigerated. Refer to the manufacturer instructions for storage information and injector use.

## **3. Testing blood glucose:**

Successful diabetes management depends to a great extent on blood glucose monitoring. The student's physician uses a continuous recording of the blood glucose to evaluate the effectiveness of the diabetes treatment program. A blood glucose check is also used to determine hyperglycemia and/or hypoglycemia. The blood glucose results are measured in milligrams per deciliter (mg/dl) (Wong 1999, p. 1866).

Students with diabetes may check their blood sugar several times a day. The student may need assistance or supervision to check the blood glucose before lunch and at other times of the day as he/she states is necessary or, as indicated by his/her behavior (Turney, 1998, 1).

Students with diabetes must be allowed to check their blood glucose when they feel it is necessary. If the teacher feels this is in excess and the student is using blood glucose monitoring to be absent from class, it should be discussed with the parent not the student.

Parents will provide a "lancing device, lancets, blood glucose test strips, and in some cases a blood glucose meter, and supplies for treating low blood glucose." Parents will need to be notified in advance when these supplies need replacement (Turney, 1). If a student is to perform blood sugar monitoring in any area other than the school health office (e.g. classroom) then parents should provide a sharps disposal container. "Lancing devices and blood glucose meters should not be shared, even among students with diabetes. (ADA. September 1999.Children With Diabetes).

Disposable gloves (latex or vinyl) that meet OSHA requirements for handling body fluids, are to be worn if someone is performing the testing other than the student (OSHA, 1992, P.18-19).

The *Virginia Guidelines for Specialized Health Care Procedures (1996)* states there are a number of blood glucose meters available. When a student with diabetes is attending school, school personnel must be trained in the proper use of the glucose monitor by a registered nurse or physician knowledgeable in the use of glucose monitors or a certified diabetic educator. If there are several students with diabetes in the school, different types of monitors may be used.

The following procedure should be followed when performing or assisting the student in performing the blood glucose monitoring.

- The student's hand must be washed and dry before sticking the finger with the lancet. If alcohol is used to clean the finger, the alcohol must be dry before sticking the finger with the lancet. Alcohol mixed with the drop of blood on the test strip can give an incorrect blood glucose reading.
- Select a site on the top or sides (not the middle) of any fingertip. Hang the arm below the level of the heart for 30 seconds to increase blood flow; then gently squeeze the fingertip in a milking fashion to increase further supply of blood to the site. The tips of the fingertips may be sensitive. The sides of the finger have less blood.
- Puncture the site with the pricking device. Gently squeeze the finger in a downward motion to obtain a drop of blood large enough to cover the test pad on the test strip (1/8 to 1/4 inch or 0.32 to 0.64 centimeters in diameter). Too much squeezing of the finger gives inaccurate results. If the pad is not covered or if the blood is smeared, the results may be inaccurate.
- Follow the directions on the blood-testing monitor for calibrating monitor, placing blood drop on strips, and obtaining a reading, OR the directions on the bottle of testing strips for placing blood on the strip and obtaining a reading.
- Record the results. Most students with diabetes keep a blood glucose monitoring log to record the results and to provide information for the diabetes care physician.
- Refer to the physician's orders to determine what action to take (VDH, 1996, V-22).

If the blood glucose is 300 or over, it is recommend the parent be notified. If the student feels well, he/she can remain in school (Turney, 1999, p.1).

### **3. Testing of urine:**

Urine testing for glucose is no longer used for diabetic management. It is recommended that urine be tested to detect the evidence of ketones in the urine. The diabetes medical management team will provide authorization for monitoring the urine for ketones at school and at when appropriate to monitor.

The parent will provide the necessary supplies for monitoring of urine. The persons designated to provide care to the student with diabetes during the school day would do the testing of urine.

## H. Insulin administration:

### 1. Proper storage of drug:

According to American Diabetes Association: Clinical Practice Recommendations, insulin vials not in use should be refrigerated. Extreme temperatures of below 36°F or above 86°F and excess agitation should be avoided. Freezing results in insulin becoming inactive.

Irritation at injection site may occur when cold insulin is used; therefore insulin in use may be kept at room temperature.

Please refer to manufacturer recommendations for appropriate storage.

### 2. Administration only from a properly labeled prescription vial from a pharmacy. Insulin should only be administered with specific authorization from the student's diabetic care management team and with parental or guardian permission.

**NOTE:** Based on the legislation passed by the 1999 General Assembly, the school administration, the student's diabetes medical management team, and the parent or guardian will have to determine for students unable to administer their own insulin, what is involved in "assisting in routine insulin injections" and "assisting in the administration of insulin." It must also be determine to what extent an unlicensed assistive personnel may be permitted to "assist in the administration of insulin injections" during the school day.

The following procedure has been adapted from the Virginia Department of Health, *Virginia Guidelines for Specialized Health Care Procedures*.

Essential Steps	Key points and Precautions
1. Insulin should be administered only on the orders of a licensed prescriber. Specific guidelines should be provided by the primary health care provider for the conditions (blood glucose levels) under which insulin is to be administered	Only persons specifically trained to administer insulin to a specific student should administer insulin. Consult your school division's legal counsel concerning who can administer insulin.
2. Assemble equipment: <ul style="list-style-type: none"> <li>insulin (as ordered by licensed</li> </ul>	Types of insulin include: Lente, Ultralente, NPH, Lispro, Regular



<p>prescriber)</p> <ul style="list-style-type: none"> <li>• appropriate gauge needle</li> <li>• insulin syringe</li> <li>• antiseptic wipe (alcohol or betadine)</li> </ul>	<p>Usually 25 G 5/8” needle for average adult, 25 to 27G 1/2” needle for a child. Syringes are provided by the parent according to physician’s recommendations.</p> <p>Use only an insulin syringe. Note the size of the syringe. For 30 units or 50 units syringes, each line counts as 1 unit. For 100 unit, each line counts as 2 units.</p>
<p>3. Obtain prescribed insulin and check it against the licensed prescriber’s order.</p> <p>Inspect insulin that is cloudy to be sure that it is okay to administer (Lente and NPH)</p>	<p>Let insulin warm to room temperature before administering.</p> <p>Check expiration date. Do not give if out of date. When administering insulin suspensions (NPH, lente, ultralente), rotate the vial gently between hands and turn it end to end several times before drawing the insulin up into the syringe.</p> <p>Do not shake the vial. If there are any signs of clumping do not give that vial of insulin and obtain another vial of insulin.</p>
<p>4. Draw up the Insulin as ordered. Double check that you are administering the right insulin, the right dosage, to the right person, and at the right time.</p>	<p>Measure insulin very carefully. The proper dose is critical.</p> <p>After insulin is drawn into syringe, the fluid should be checked for air bubbles. Remove any air bubbles in the syringe.</p>
<p>5. Select an appropriate injection site. Remember to rotate sites as ordered by the primary health care provider.</p>	<p>Sites include the fatty tissues on the outer, upper arm, the front of the thigh, the abdomen, the buttocks, and the upper back below the shoulder blades.</p>
<p>6. Put on gloves. clean site with antiseptic wipe, beginning at center of site and moving, outward in a circular motion. Allow skin to dry.</p>	<p>Sites that are inflamed, edematous, scarred, or covered by a mole, birthmark, or other lesion should be avoided.</p> <p>Antiseptic may sting if it enters body tissues.</p>
<p>7. Grasp/pinch skin up firmly</p>	
<p>8. Position needle with bevel facing up, at an appropriate angle. Insert needle with one quick motion, release patient’s skin, and inject insulin. (Do not aspirate or pull back on plunger)</p>	<p>Pull subcutaneous tissue away from muscles and firms skin so that the needle will enter more easily.</p> <p>5/8” needle or more, use 45 degree angle 1/2” needle use 90 degree angle.</p>
<p>9. Remove needle gently but quickly at the same angle used for insertion. Cover site with</p>	

antiseptic wipe.	
10. Dispose of used equipment according to universal precautions policy. Do not recap needle.	Do not massage site.  Recapping a needle can result in a needle stick injury.
11. Document dose of insulin given; time given, site, and any reactions or problems noted.	Place used syringe in a puncture-resistant disposal container.

**NOTE:** Insulin may also be administered by an insulin pump or insulin pen. If student has either of these devices, refer to manufacturer directions and licensed prescriber's orders.

## **I. Hyperglycemia:**

Hyperglycemia or high blood sugar occurs when there is not enough insulin or not enough food, then blood sugar levels become too high (ADA, Children With Diabetes: Information for Teachers and Child-Care Providers, 1999).

### **1. Prevention:**

Hyperglycemia, (high blood sugar levels), in children who have diabetes can be caused by a number of things such as:

- Not taking enough insulin,
- Eating too much or too soon in relation to the next blood glucose check,
- Rebounding from a low blood sugar,
- Not getting enough exercise,
- Stress caused by an illness,
- Emotional turmoil,
- Sometimes for no apparent reason (Turney, 1999, p.5)

### **2. Recognition:**

The usual signs of hyperglycemia are:

- Increased urination,
- Increased thirst,
- Being unusually tired or sleepy,

- Increased hunger,
- Abdominal pain, with or without vomiting,
- Headache,
- Blurred vision (Turney, 1999, p.5).

### **3. Treatment:**

The goal of treatment for hyperglycemia is to lower the blood sugar. Giving additional insulin if ordered by the physician and with parental permission to treat the high blood sugar. Check the student's blood sugar to determine the blood level of glucose.

Sugar-free drinks, such as water or DIET soda may be given. Students with diabetes must be given free access to the water fountain and to the bathroom whenever they feel the need (ADA. August 1999. Children With Diabetes).

Parents need to be notified when the student's blood sugar is over 300mg/dl. Students with physical symptoms of high blood sugar or blood sugars over 400 mg/dl should not remain at school (Turney, p. 5).

Prolonged hyperglycemia due to insufficient insulin can cause a very serious condition called diabetic ketoacidosis, which can lead to coma and death (ADA. August 1999. Children With Diabetes).

### **J. Hypoglycemia:**

Hypoglycemia, also known as an insulin reaction, is defined as low blood sugar, or blood sugar values below 70 mg/dl. Because the brain and other vital organs need sugar to function, hypoglycemia is an immediate problem. The body's first response to low blood sugar, which is a type of stress, is to put out adrenaline. Adrenaline is a hormone that is produced in the center of the adrenal glands just above the kidneys (Turney, 1999, p. 3).

The early signs and symptoms of hypoglycemia (listed in item #2 below) are actually caused by the effects of adrenaline on the body, not by the low blood sugar itself. Once adrenaline gets into the system, it stays there for 20 to 30 minutes in order to correct the problem. It increases the blood sugar level by stimulating the liver to release stored sugar. Therefore, it is important not to overtreat an insulin reaction even though the student may still be feeling the symptoms of the release of adrenaline.

Because adrenaline is released in response to any stress, it is important to check the blood sugar before treating the hypoglycemic symptoms. (Turney, 1999, p. 3).

Warning signs and symptoms of low blood sugar happen suddenly. The signs and symptoms can easily be mistaken for misbehavior.

## **1. Prevention:**

The following can prevent hypoglycemia:

- checking blood sugar routinely,
- planning meals and snacks on as regular a schedule as possible,
- not skipping meals or snacks,
- being careful to draw up the exact amount of insulin to be used,
- rotating injection sites,
- planning for extra food or reduction of insulin before exercising,
- increasing the bedtime snack on extremely active days to avoid hypoglycemia during the night (Turney, 1999, p. 3).

## **2. Recognition:**

Symptoms of hypoglycemia are individual and may vary from person to person. A student may not experience all of the symptoms. Symptoms can occur rapidly.

shakiness	visual disturbances
weakness	complaining of "feeling funny"
dizziness	numbness or tingling of lips
cold, clammy skin	yawning
hunger	headache
drowsiness	inability to concentrate
sweating	changes in behavior (irritability, crying)
pale ness	slurred speech
rapid heart beat	nausea

unconsciousness (extreme cases) convulsions (extreme cases)  
(Turney, 1999, p. 3).

### 3. Treatment of Hypoglycemia:

A student in school with hypoglycemia must be escorted to the health office because rapidly dropping blood sugar may cause confusion. Check the blood sugar, depending on how advanced the hypoglycemia, the student may need some assistance.

MILD HYPOGLYCEMIA	
SIGNS AND SYMPTOMS	TREATMENT
Behavioral Signs: A wide variety of behaviors can occur.	If you do not know what the blood sugar is, treat the symptoms.
Behavior changes may include: <ul style="list-style-type: none"> <li>• acting quiet and withdrawn</li> <li>• being stubborn or restless</li> <li>• tantrums of sudden rage</li> <li>• confusion</li> <li>• inappropriate emotional responses (eg: laughter, crying)</li> <li>• poor concentration or day dreaming</li> </ul>	<p><b>Never send a child who you suspect is having a low blood sugar to the nurse's office. Send another student to get help if you need it.</b></p> <p>Give the student some quick-acting sugar such as :</p> <ul style="list-style-type: none"> <li>• 3 – 4 ounces of juice</li> <li>• 6 – 8 ounces of REGULAR soda</li> <li>• 2 – 4 glucose tablets</li> <li>• 5 – 6 lifesavers</li> <li>• 6 – 8 ounces of Milk</li> </ul>
Shakiness	Check the blood sugar 20 – 30 minutes after treatment. If the blood sugar result is less than 80, or if the child still has symptoms, repeat the quick sugar treatment and blood sugar testing cycle until the student is symptom free and the blood sugar result is above 80.
Sweatiness	
Headache	
Dizziness	
Pallor	
Increased Heart Rate	
NOTE: It may take the child several hours to recover following a low blood sugar episode. The student should not be expected to perform at optimal levels, but having diabetes should never be an excuse for poor overall school performance.	<p>When the student feels better and the blood sugar result is above 80, give One (1) of the following, if the student's next meal is more than 1 hour away and/or if the student will be participating in active play/sports following this low blood sugar episode.</p> <ul style="list-style-type: none"> <li>• ½ sandwich</li> <li>• ½ cup milk</li> <li>• 4 graham cracker squares with</li> </ul>

	<p>peanut butter or cheese</p> <ul style="list-style-type: none"> <li>• 6 saltine crackers with peanut butter or cheese</li> </ul> <p>The student may return to class after the blood sugar is above 80 and the student is symptom free.</p>
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<b>MODERATE HYPOGLYCEMIA</b>	
<b>SIGNS AND SYMPTOMS</b>	<b>TREATMENT</b>
<p>Staggering walk</p> <p>Pale appearance</p> <p>Uncontrollable crying episode</p> <p>Slurred speech</p> <p>Blank stare</p> <p>Refusal to take anything by mouth</p>	<p>Follow the same procedure as indicated in the treatment for Mild Hypoglycemia with the following exception:</p> <ul style="list-style-type: none"> <li>• if the student has difficulty drinking but is able to swallow, (student may become irrational and uncooperative and may not be able to follow directions) slowly place cake icing (gel type) or glucose gel in between the student's cheeks - even if the student resists. This may require assistance.</li> <li>• rub the cheeks gently to make sure sugar is being absorbed.</li> </ul> <p>Follow with food if more than 30 minutes until next meal or snack (see mild hypoglycemia).</p> <p>The student may return to class after the blood sugar is above 80 and when the student is symptom free.</p>

<b>SEVERE HYPOGLYCEMIA</b>	
<b>This is a Medical Emergency!!</b>	
<b>Signs and Symptoms</b>	<b>Treatment</b>
Unconscious	Be sure child is lying down in a safe area protected from head and bodily injury.
Unresponsive	
Convulsion-like movement	Position the child on his/her side

Failure to respond to cake icing (gel type) or glucose gel.	<p>Inject glucagon and/or call for emergency medical assistance (911 in the United States).</p> <p>Do not attempt to put anything between the teeth.</p> <p>As the child regains consciousness, nausea and vomiting may occur.</p> <p>Notify parents or guardians and or diabetes team of the episode as soon as possible.</p>
Schwartz, Children with Diabetes, September 1999, [on-line], available: <a href="mailto:steph.schwartz@childrenwithdiabetes.com">steph.schwartz@childrenwithdiabetes.com</a>	

The physician's order for how each individual student diagnosed with diabetes will be cared for at school. Those orders will include specific directions when the Glucagon is to be given. The following procedure for administering Glucagon in an emergency situation is adapted from the *Virginia Guidelines for Specialized Health Care Procedures*, (p. V-30-31).

Glucagon Injection Procedure	
Essential Steps	Key Points and Precautions
If Glucagon is needed, send someone to call 911, and then call the school nurse and the parents.	
Place the student on his or her side, ensuring drainage of secretions or vomitus, should vomiting occur.	
<p>Prepare a Glucagon syringe:</p> <ul style="list-style-type: none"> <li>Remove the needle cover and vial cap.</li> <li>Inject the entire contents of the syringe into the vial.</li> <li>With the needle remaining in the vial, rotate the vial gently until the solution is clear.</li> <li>Pull back on the plunger to</li> </ul>	<p><b>Glucagon must be kept in the same place all the time with notices posted of the location.</b></p> <p><b>It is CRITICAL that staff caring for this student in an emergency situation know where the Glucagon is stored.</b></p> <p><b>If Glucagon vial and syringe are separate then must be taped together for ease in locating.</b></p>

withdraw all the solution into the syringe.	
Administer the Glucagon: Expose and cleanse the injection site (upper, outer area of the thigh, buttock upper arm).	Injection is usually given intramuscularly. It may be given subcutaneously however; the absorption rate is slower.
If the student awakens and is able to swallow, give sips of clear REGULAR soda or other non-diet soda equaling 3 to 6 ounces (120 to 180 ml).	Nausea and vomiting may occur as effects of Glucagon or extreme hypoglycemia. Juices may aggravate nausea. Providing a clear regular soda or other non-diet soda is preferred.
Assist paramedics as needed.	
Record the procedure.	Glucagon can be given through clothing if necessary

- ❖ This procedure is placed in the Appendix to allow you to copy and laminate for use of teachers and other staff members.

4. Summary of key points:

- The body treats itself by using adrenaline to release the sugar stored in the liver into the blood stream; therefore, the student must be careful not to eat too much during hypoglycemia.
- Because the adrenaline stays in the blood stream for 20-30 minutes, the student may still feel the symptoms even though the blood sugar has returned to normal. The student must not continue to eat once the blood sugar is above 80mg/dl. Normal blood sugar is 80 to 120 mg/dl.
- Frequently students will feel sleepy. **Do Not Allow** the student to sleep. The student may rest once the blood sugar is obtained and treated if necessary. After symptoms are relieved, the student may return to the classroom. (Turney, 1999, p. 3).
- Parents must be notified of the hypoglycemia reaction.
- At any time if there are questions and the parents cannot be reached, call the student's physician.

5. Recommended school box supplies for students in schools with diabetes.

According to ADA, parents are responsible for providing the school with necessary supplies to check blood sugars and treat low blood sugars. Parents will need to meet with



the school nurse, teacher and necessary personnel before the student with diabetes returns to school to discuss the needs of the student and the school schedule. The following supplies should be available in the school health office and will need to be replaced by the parents as they are used.

Supplies to monitor blood sugars:

- one lancing device
- lancets
- blood glucose strips
- blood glucose meter
- one sharps container ( if using disposable lancets)

Supplies to treat low blood sugars (hypoglycemia)

- glucose tablets
- small boxes/cans of juice or regular soda (cans with flip tops)
- cake decorating gel
- Glucagon if indicated
- peanut butter or cheese crackers (prepackaged)

Each student will have an Individualized Care Plan for treatment of hypoglycemia that has been provided by the medical care specialist, the parents and the school nurse. This plan will be individualized for each student.

- ❖ Charts with graphic symptoms of hyperglycemia and hypoglycemia and suggested treatments are attached as Appendix E and Ea .

## **K. Storage and disposal of medical supplies**

### **1. Standard precautions**

- Follow local school division exposure control plan
- Refer to page 4 of this manual

### **4. Security of medications and syringes**

- Each local school division will have policies regarding storage of medications and syringes. It is recommended by the Virginia Department of Health, *Guidelines for Specialized Health Care Procedures*, that medications and syringes should be locked in medicine cabinet, however the keys should be easy to access in an emergency.

### **3. Expiration date of medication (put medication procedure here for expiration)**

“Unused medication should be picked up by the parents one week after the expiration date. After one week the medication should be destroyed by the school nurse, principal or principal’s designee. It is advisable that the destruction of medication should be witnessed.” (Virginia Department of Health, *Virginia School Health Guidelines*, 1999, p. 259).

#### **L. Necessity for documentation to be maintained and to include:**

- 1. Signed authorizations, updated annually, from the student’s parent or guardian and from the treating physician.**
- 2. The individualized healthcare plan updated annually, for each student.**
- 3. Medication administration that is signed and consistent with required procedures.**
- 4. Description of any complications.**

#### **M. Emergency plan**

Each student diagnosed with diabetes should have an emergency care plan and a diabetes emergency kit. ‘The kit should be kept in a place known to the student and to any school staff member who may be treating hypoglycemia. If the student leaves the campus (e.g., to go on a field trip), the kit should be taken along. The label should state “Diabetes Emergency Kit” and should include the student’s name” (Virginia Department of Health, *Virginia Specialized Health Care Procedures Manual*, 1996, p. V-35).

The contents of the kit should include those items listed on page 25 of this manual and a card with a brief history of the student’s diabetes.

An emergency care plan should be written for school personnel in contact with the student with diabetes during the school day. Each of the student’s teachers should have a copy. The emergency care plan will provide the student’s name, phone number, address, phone numbers where parents or guardian can be located, beeper number of the parent or guardian if applicable, phone numbers for the student’s diabetic care management team.

The care plan will also include simple instructions regarding the care of the student during an emergency.

A sample emergency care plan is provide in Appendix F.

**N. Existing resources in community, such as organizations and written materials:**

The following organizations can be contacted for information regarding diabetes and local contacts.

1. The American Diabetes Association  
1660 Duke Street  
Alexandria, VA 22314  
1-800-232-3472  
1-703-549-1500
2. The Juvenile Diabetes Foundation  
120 Wall Street  
New York, NY 10005-4001  
USA  
1-800-JDF-CURE  
1-212-785-9595

See Appendix I for additional resources relating to diabetes in children.

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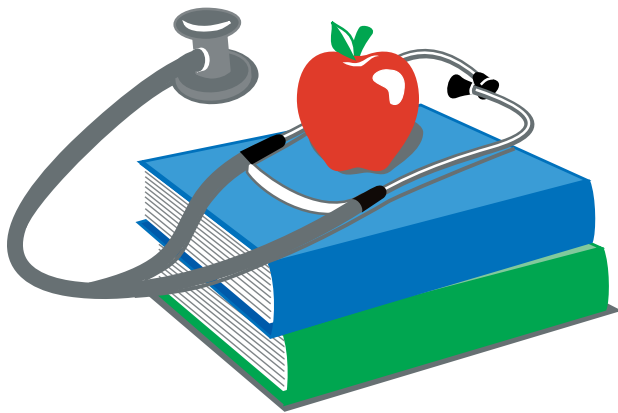
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## Appendix



Appendix A

**Guidelines for Training of Public School Employees  
in the  
Administration of Insulin and Glucagon**

Adopted by Virginia Board of Nursing – July 20, 1999  
Accepted by Virginia Board of Medicine – July 1999  
Approved by Virginia Board of Education – July 22, 1999

# Authorization

Code of Virginia. Chapter- 570 of the 1999 Acts of the Assembly, An Act to amend and reenact §§8.01-225, 22.1-274, 22.1-275.1, 54.1-2901, 54.1-3001, 54.1-3005, **and** 54.1-3408 of the *Code of Virginia*, relating to care of public school students diagnosed with diabetes. See copy of Chapter 570 attached.

## Training Guidelines

### I. Parameters of Training

- A. Qualifications of instructional personnel. The trainer must be:
  - 1. A registered nurse or licensed physician with recent training or experience in the management of diabetes mellitus in children.
  - 2. Trained in relevant sections of law and regulations, such as Individual with Disabilities Educational Act (IDEA) and Occupational Safety and Health Act (OSHA).
- B. The course shall continue until competency is demonstrated, but shall not be less than four hours.
- C. Retraining shall be completed at least yearly and last not less than one hour.
- D. Training shall be documented and shall include skills checklist, instructor's name, trainee's name, date of training, and documentation of competency of trainee to administer.

### II. Content of the training curriculum

- A. The need to have authorization for treatment initially received and updated annually from the following:
  - 1. The student's parent or guardian.

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- 2. The treating physician, who may further authorize the parent or guardian to alter dosages as necessary.
- B. The requirement for an individualized healthcare plan for each student to be initially prepared and updated annually.
- C. Rights and responsibilities of the student, the physician, the parent or guardian, tile administrator, and the trainee which are consistent with existing laws and policies of the local school board and with relevant state and federal laws to include, but not be limited to the following:

1. Individual with Disabilities Educational Act (IDEA)
  2. Section 504 of the Rehabilitation Act
  3. Occupational Safety and Health Act (OSHA); and
  4. The Drug Control Act (Chapter 34 of Title *54.1* of the Code of Virginia)
- D. Overview of diabetes mellitus
1. Definition
  2. Types of diabetes
- E. Principles of medication administration
1. Right student
  2. Right Medication
  3. Right dose
  4. Right route
  5. Right time
- F. Therapeutic management of diabetes
1. Nutrition
  2. Exercise
  3. Medication
- Page 2 of 4
4. Support of independence
    - a. Support the student's developing independence through assisting with self-care.
    - b. Support the student's healthy response to diabetes.
- G. Monitoring of student
1. Using insulin pump

2. Testing blood glucose

3. Testing of urine

#### H. Insulin administration

1. Proper storage of drug

2. Administration only from a properly labeled prescription vial from a pharmacy

3. Essential techniques of administration

#### I. Hyperglycemia

1. Prevention

2. Recognition

3. Treatment

#### J. Hypoglycemia

1. Prevention

2. Recognition

3. Treatment, including administration of glucagon

#### K. Storage and disposal of medical supplies

1. Standard precautions

2. Security of medication and syringes

3. Expiration date of medication

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#### L. Necessity for documentation to be maintained and to include:

1. Signed authorizations, updated annually, from the student's parent or guardian and from the treating physician.

2. The individualized healthcare plan, updated annually, for each student.

3. Medication administration that is signed and consistent with required procedures.

4. Description of any complications.



M. Emergency plan

N. Existing resources in community, such as organizations and written materials.



**Appendix B****§ 8.01-225. Persons rendering emergency care, obstetrical services exempt from liability.****A. Any person who:**

1. In good faith, renders emergency care or assistance, without compensation, to any ill or injured person at the scene of an accident, fire, or any life-threatening emergency, or en route therefrom to any hospital, medical clinic or doctor's office, shall not be liable for any civil damages for acts or omissions resulting from the rendering of such care or assistance.
2. In the absence of gross negligence, renders emergency obstetrical care or assistance to a female in active labor who has not previously been cared for in connection with the pregnancy by such person or by another professionally associated with such person and whose medical records are not reasonably available to such person shall not be liable for any civil damages for acts or omissions resulting from the rendering of such emergency care or assistance. The immunity herein granted shall apply only to the emergency medical care provided.
3. In good faith and without compensation, administers epinephrine to an individual for whom an insect sting treatment kit has been prescribed shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such treatment if he has reason to believe that the individual receiving the injection is suffering or is about to suffer a life-threatening anaphylactic reaction.
4. Provides assistance upon request of any police agency, fire department, rescue or emergency squad, or any governmental agency in the event of an accident or other emergency involving the use, handling, transportation, transmission or storage of liquefied petroleum gas, liquefied natural gas, hazardous material or hazardous waste as defined in § 18.2-278.1 or regulations of the Virginia Waste Management Board shall not be liable for any civil damages resulting from any act of commission or omission on his part in the course of his rendering such assistance in good faith.
5. Is an emergency medical care attendant or technician possessing a valid certificate issued by authority of the State Board of Health who in good faith renders emergency care or assistance whether in person or by telephone or other means of communication, without compensation, to any injured or ill person, whether at the scene of an accident, fire or any other place, or while transporting such injured or ill person to, from or between any hospital, medical facility, medical clinic, doctor's office or other similar or related medical facility, shall not be liable for any civil damages for acts or omissions resulting from the rendering of such emergency care, treatment or assistance, including but in no way limited to acts or omissions which involve violations of State Department of Health regulations or any other state regulations in the rendering of such emergency care or assistance.
6. Has attended and successfully completed a course in cardiopulmonary resuscitation which has been approved by the State Board of Health who, in good faith and without compensation, renders or administers emergency cardiopulmonary resuscitation, cardiac defibrillation, including, but not limited to, the use of an automated external defibrillator, or other emergency life-sustaining or resuscitative treatments or procedures which have been approved by the State Board of Health to any sick or injured person, whether at the scene of a fire, an accident or any other place, or while transporting such person to or from any hospital, clinic, doctor's office or other medical facility, shall be deemed qualified to administer such emergency treatments and procedures and shall not be liable for acts or omissions resulting from the rendering of such emergency resuscitative treatments or

procedures.

7. In compliance with § 32.1-111.14:1 registers an automated external defibrillator for use at the scene of an emergency, operates a registered automated external defibrillator at the scene of an emergency, trains individuals to be operators of registered automated external defibrillators, or orders automated external defibrillators which are subsequently registered, shall be immune from civil liability for any personal injury that results from any act or omission in the use of a registered automated external defibrillator in an emergency where the person performing the defibrillation acts as an ordinary, reasonably prudent person would have acted under the same or similar circumstances, unless such personal injury results from gross negligence or willful or wanton misconduct of the person rendering such emergency care.

8. Is a volunteer in good standing and certified to render emergency care by the National Ski Patrol System, Inc., who, in good faith and without compensation, renders emergency care or assistance to any injured or ill person, whether at the scene of a ski resort rescue, outdoor emergency rescue or any other place or while transporting such injured or ill person to a place accessible for transfer to any available emergency medical system unit, or any resort owner voluntarily providing a ski patroller employed by him to engage in rescue or recovery work at a resort not owned or operated by him, shall not be liable for any civil damages for acts or omissions resulting from the rendering of such emergency care, treatment or assistance, including but not limited to acts or omissions which involve violations of any state regulation or any standard of the National Ski Patrol System, Inc., in the rendering of such emergency care or assistance, unless such act or omission was the result of gross negligence or willful misconduct.

9. Is an employee of a school board, authorized by a prescriber and trained in the administration of insulin and glucagon, who, upon the written request of the parents as defined in § 22.1-1, assists with the administration of insulin or administers glucagon to a student diagnosed as having diabetes who requires insulin injections during the school day or for whom glucagon has been prescribed for the emergency treatment of hypoglycemia shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such treatment if the insulin is administered according to the child's medication schedule or such employee has reason to believe that the individual receiving the glucagon is suffering or is about to suffer life-threatening hypoglycemia. Whenever any employee of a school board is covered by the immunity granted herein, the school board employing him shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such insulin or glucagon treatment.

B. Any licensed physician serving without compensation as the operational medical director for a licensed emergency medical services agency in this Commonwealth shall not be liable for any civil damages for any act or omission resulting from the rendering of emergency medical services in good faith by the personnel of such licensed agency unless such act or omission was the result of such physician's gross negligence or willful misconduct.

Any person serving without compensation as a dispatcher for any licensed public or nonprofit emergency services agency in this Commonwealth shall not be liable for any civil damages for any act or omission resulting from the rendering of emergency services in good faith by the personnel of such licensed agency unless such act or omission was the result of such dispatcher's gross negligence or willful misconduct.

Any individual, certified by the State Office of Emergency Medical Services as an emergency medical services instructor and pursuant to a written agreement with such office, who, in good faith and in the

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## § 54.1-3001. Exemptions.

This chapter shall not apply to the following:

1. The furnishing of nursing assistance in an emergency;
2. The practice of nursing, which is prescribed as part of a study program, by nursing students enrolled in nursing education programs approved by the Board or by graduates of approved nursing education programs for a period not to exceed ninety days following successful completion of the nursing education program pending the results of the licensing examination, provided proper application and fee for licensure have been submitted to the Board and unless the graduate fails the licensing examination within the ninety-day period;
3. The practice of any legally qualified nurse of another state who is employed by the United States government while in the discharge of his official duties;
4. The practice of nursing by a nurse who holds a current unrestricted license in another state, the District of Columbia, a United States possession or territory, or who holds a current unrestricted license in Canada and whose training was obtained in a nursing school in Canada where English was the primary language, for a period of thirty days pending licensure in Virginia, if the nurse, upon employment, has furnished the employer satisfactory evidence of current licensure and submits proper application and fees to the Board for licensure before, or within ten days after, employment. At the discretion of the Board, additional time may be allowed for nurses currently licensed in another state, the District of Columbia, a United States possession or territory, or Canada who are in the process of attaining the qualification for licensure in this Commonwealth;
5. The practice of nursing by any registered nurse who holds a current unrestricted license in another state, the District of Columbia, or a United States possession or territory, or a nurse who holds an equivalent credential in a foreign country, while enrolled in an advanced professional nursing program requiring clinical practice. This exemption extends only to clinical practice required by the curriculum;
6. The practice of nursing by any nurse who holds a current unrestricted license in another state, the District of Columbia, or a United States possession or territory and is employed to provide care to any private individual while such private individual is traveling through or temporarily staying, as defined in the Board's regulations, in the Commonwealth;
7. General care of the sick by nursing assistants, companions or domestic servants that does not constitute the practice of nursing as defined in this chapter;
8. The care of the sick when done solely in connection with the practice of religious beliefs by the adherents and which is not held out to the public to be licensed practical or professional nursing;
9. Any employee of a school board, authorized by a prescriber and trained in the administration of insulin and glucagon, when, upon the authorization of a prescriber and the written request of the parents as defined in § 22.1-1, assisting with the administration of insulin or administering glucagon to a student diagnosed as having diabetes and who requires insulin injections during the school day or for whom glucagon has been prescribed for the emergency treatment of hypoglycemia;

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§ 22.1-275.1. School health advisory board.

Each school board shall establish a school health advisory board of no more than twenty members which shall consist of broad-based community representation including, but not limited to, parents, students, health professionals, educators, and others. The school health advisory board shall assist with the development of health policy in the school division and the evaluation of the status of school health, health education, the school environment, and health services.

The school health advisory board shall hold meetings at least semi-annually and shall annually report on the status and needs of student health in the school division to any relevant school, the school board, the Virginia Department of Health, and the Virginia Department of Education.

The local school board may request that the school health advisory board recommend to the local school board procedures relating to children with acute or chronic illnesses or conditions, including, but not limited to, appropriate emergency procedures for any life-threatening conditions and designation of school personnel to implement the appropriate emergency procedures. The procedures relating to children with acute or chronic illnesses or conditions shall be developed with due consideration of the size and staffing of the schools within the jurisdiction.

(1990, c. 315; 1992, c. 174; 1999, c. 570.)

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employed by a local health department who is assigned to the public school pursuant to an agreement between the local health department and the school board. When a registered nurse, nurse practitioner, physician or physician assistant is present, no employee who is not a registered nurse, nurse practitioner, physician or physician assistant shall assist with the administration of insulin or administer glucagon. Prescriber authorization and parental consent shall be obtained for any employee who is not a registered nurse, nurse practitioner, physician or physician assistant to assist with the administration of insulin and administer glucagon.

(Code 1950, § 22-241; 1956, c. 656; 1980, c. 559; 1990, c. 797; 1991, c. 295; 1994, c. 712; 1997, c. 597; 1998, c. 871; 1999, cc. 570, 757.)

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§ 22.1-274. School health services.

A. A school board shall provide pupil personnel and support services, in compliance with § 22.1-253.13:2. A school board may employ school nurses, physicians, physical therapists, occupational therapists and speech therapists. No such personnel shall be employed unless they meet such standards as may be determined by the Board of Education. Subject to the approval of the appropriate local governing body, a local health department may provide personnel for health services for the school division.

B. In implementing subsection C of § 22.1-253.13:2, relating to providing support services which are necessary for the efficient and cost-effective operation and maintenance of its public schools, each school board may strive to employ, or contract with local health departments for, nursing services consistent with a ratio of at least one nurse (i) per 2,500 students by July 1, 1996; (ii) per 2,000 students by July 1, 1997; (iii) per 1,500 students by July 1, 1998; and (iv) per 1,000 students by July 1, 1999. In those school divisions in which there are more than 1,000 students in average daily membership in school buildings, this section shall not be construed to encourage the employment of more than one nurse per school building. Further, this section shall not be construed to mandate the aspired-to ratios.

C. The Board of Education shall monitor the progress in achieving the ratios set forth in subsection B of this section and any subsequent increase in prevailing statewide costs, and the mechanism for funding health services, pursuant to subsection E of § 22.1-253.13:2 and the appropriation act. The Board shall also determine how school health funds are used and school health services are delivered in each locality and shall provide, by December 1, 1994, a detailed analysis of school health expenditures to the House Committee on Education, the House Committee on Appropriations, the Senate Committee on Education and Health, and the Senate Committee on Finance.

D. With the exception of school administrative personnel and persons employed by school boards who have the specific duty to deliver health-related services, no licensed instructional employee, instructional aide, or clerical employee shall be disciplined, placed on probation or dismissed on the basis of such employee's refusal to (i) perform nonemergency health-related services for students or (ii) obtain training in the administration of insulin and glucagon. However, instructional aides and clerical employees may not refuse to dispense oral medications.

For the purposes of this subsection, "health-related services" means those activities which, when performed in a health care facility, must be delivered by or under the supervision of a licensed or certified professional.

E. Each school board shall ensure that, in school buildings with an instructional and administrative staff of ten or more, (i) at least two employees have current certification in cardiopulmonary resuscitation or have received training, within the last two years, in emergency first aid and cardiopulmonary resuscitation and (ii) if one or more students diagnosed as having diabetes attend such school, at least two employees have been trained in the administration of insulin and glucagon. In school buildings with an instructional and administrative staff of fewer than ten, school boards shall ensure that (i) at least one employee has current certification in cardiopulmonary resuscitation or has received training, within the last two years, in emergency first aid and cardiopulmonary resuscitation and (ii) if one or more students diagnosed as having diabetes attend such school, at least one employee has been trained in the administration of insulin and glucagon. "Employee" shall include any person



For the purposes of this section, an emergency medical care attendant or technician shall be deemed to include a person licensed or certified as such or its equivalent by any other state when he is performing services which he is licensed or certified to perform by such other state in caring for a patient in transit in this Commonwealth, which care originated in such other state.

(Code 1950, § 54-276.9; 1962, c. 449; 1964, c. 568; 1968, c. 796; 1972, c. 578; 1975, c. 508; 1977, c. 441; 1978, cc. 94, 707; 1979, cc. 713, 729; 1980, c. 419; 1983, c. 72; 1984, cc. 493, 577; 1987, cc. 260, 382; 1990, c. 898; 1996, c. 899; 1997, cc. 334, 809; 1998, cc. 493, 500; 1999, cc. 570, 1000; 2000, cc. 928, 1064.)

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performance of his duties, provides instruction to persons for certification or recertification as a certified basic life support or advanced life support emergency medical services technician shall not be liable for any civil damages for acts or omissions on his part directly relating to his activities on behalf of such office unless such act or omission was the result of such emergency medical services instructor's gross negligence or willful misconduct.

Any licensed physician serving without compensation as a medical advisor to an E-911 system in this Commonwealth shall not be liable for any civil damages for any act or omission resulting from rendering medical advice in good faith to establish protocols to be used by the personnel of the E-911 service, as defined in § 58.1-3813.1, when answering emergency calls unless such act or omission was the result of such physician's gross negligence or willful misconduct.

Any licensed physician who directs the provision of emergency medical services, as authorized by the State Board of Health, through a communications device shall not be liable for any civil damages for any act or omission resulting from the rendering of such emergency medical services unless such act or omission was the result of such physician's gross negligence or willful misconduct.

Any licensed physician serving without compensation as a supervisor of a registered automated external defibrillator in this Commonwealth shall not be liable for any civil damages for any act or omission resulting from rendering medical advice in good faith to the registrant of the automated external defibrillator relating to personnel training, local emergency medical services coordination, protocol approval, automated external defibrillator deployment strategies, and equipment maintenance plans and records unless such act or omission was the result of such physician's gross negligence or willful misconduct.

C. Any provider of telecommunication service, as defined in § 58.1-3812, including mobile service, in this Commonwealth shall not be liable for any civil damages for any act or omission resulting from rendering such service with or without charge related to emergency calls unless such act or omission was the result of such service provider's gross negligence or willful misconduct.

Any volunteer engaging in rescue or recovery work at a mine or any mine operator voluntarily providing personnel to engage in rescue or recovery work at a mine not owned or operated by such operator, shall not be liable for civil damages for acts or omissions resulting from the rendering of such rescue or recovery work in good faith unless such act or omission was the result of gross negligence or willful misconduct.

D. Nothing contained in this section shall be construed to provide immunity from liability arising out of the operation of a motor vehicle.

For the purposes of this section, the term "compensation" shall not be construed to include (i) the salaries of police, fire or other public officials or personnel who render such emergency assistance, (ii) the salaries or wages of employees of a coal producer engaging in emergency medical technician service or first aid service pursuant to the provisions of §§ 45.1-161.38, 45.1-161.101, 45.1-161.199 or § 45.1-161.263, (iii) complimentary lift tickets, food, lodging or other gifts provided as a gratuity to volunteer members of the National Ski Patrol System, Inc., by any resort, group or agency, or (iv) the salary of any person who, in compliance with § 32.1-111.14:1, (a) registers an automated external defibrillator for the use at the scene of an emergency, (b) trains individuals, in courses approved by the Board of Health, to operate registered automated external defibrillators at the scene of emergencies, (c) orders automated external defibrillators for subsequent registration and use at the scene of emergencies, or (d) operates, in accordance with the training required by § 32.1-111.14:1, a registered automated external defibrillator at the scene of an emergency.

10. The practice of nursing by any nurse who is a graduate of a foreign nursing school and has met the credential, language, and academic testing requirements of the Commission on Graduates of Foreign Nursing Schools for a period not to exceed ninety days from the date of approval of an application submitted to the Board when such nurse is working as a nonsupervisory staff nurse in a licensed nursing home or certified nursing facility. During such ninety-day period, such nurse shall take and pass the licensing examination to remain eligible to practice nursing in Virginia; no exemption granted under this subdivision shall be extended; or

11. The practice of nursing by any nurse rendering free health care to an underserved population in Virginia who (i) does not regularly practice nursing in Virginia, (ii) holds a current valid license or certification to practice nursing in another state, territory, district or possession of the United States, (iii) volunteers to provide free health care to an underserved area of this Commonwealth under the auspices of a publicly supported all volunteer, nonprofit organization with no paid employees that sponsors the provision of health care to populations of underserved people throughout the world, (iv) files a copy of the license or certification issued in such other jurisdiction with the Board, (v) notifies the Board at least fifteen days prior to the voluntary provision of services of the dates and location of such service, and (vi) acknowledges, in writing, that such licensure exemption shall only be valid, in compliance with the Board's regulations, during the limited period that such free health care is made available through the volunteer, nonprofit organization on the dates and at the location filed with the Board. The Board may deny the right to practice in Virginia to any nurse whose license or certificate has been previously suspended or revoked, who has been convicted of a felony or who is otherwise found to be in violation of applicable laws or regulations.

(Code 1950, § 54-362; 1970, c. 116; 1982, c. 598, § 54-367.36; 1988, c. 765; 1994, cc. 58, 103; 1996, c. 388; 1999, c. 570; 2001, cc. 244, 251; 2002, cc. 713, 740.)

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§ 54.1-2901. Exceptions and exemptions generally.

The provisions of this chapter shall not prevent or prohibit:

1. Any person entitled to practice his profession under any prior law on June 24, 1944, from continuing such practice within the scope of the definition of his particular school of practice;
2. Any person licensed to practice naturopathy prior to June 30, 1980, from continuing such practice in accordance with regulations promulgated by the Board;
3. Any licensed nurse practitioner from rendering care under the supervision of a duly licensed physician when such services are authorized by regulations promulgated jointly by the Board of Medicine and the Board of Nursing;
4. Any registered professional nurse, registered midwife, licensed nurse practitioner, graduate laboratory technician or other technical personnel who have been properly trained from rendering care or services within the scope of their usual professional activities which shall include the taking of blood, the giving of intravenous infusions and intravenous injections, and the insertion of tubes when performed under the orders of a person licensed to practice medicine;
5. Any dentist, pharmacist or optometrist from rendering care or services within the scope of his usual professional activities;
6. Any practitioner licensed or certified by the Board from delegating to personnel supervised by him, such activities or functions as are nondiscretionary and do not require the exercise of professional judgment for their performance and which are usually or customarily delegated to such persons by practitioners of the healing arts, if such activities or functions are authorized by and performed for such practitioners of the healing arts and responsibility for such activities or functions is assumed by such practitioners of the healing arts;
7. The rendering of medical advice or information through telecommunications from a physician licensed to practice medicine in Virginia or an adjoining state to emergency medical personnel acting in an emergency situation;
8. The domestic administration of family remedies;
9. The giving or use of massages, steam baths, dry heat rooms, infrared heat or ultraviolet lamps in public or private health clubs and spas;
10. The manufacture or sale of proprietary medicines in this Commonwealth by licensed pharmacists or druggists;
11. The advertising or sale of commercial appliances or remedies;
12. The fitting by nonitinerant persons or manufacturers of artificial eyes, limbs or other apparatus or appliances or the fitting of plaster cast counterparts of deformed portions of the body by a nonitinerant bracemaker or prosthetist for the purpose of having a three-dimensional record of the deformity, when such bracemaker or prosthetist has received a prescription from a licensed physician directing the fitting of such casts and such activities are conducted in conformity with the laws of Virginia;

physically present.

A dentist may cause Schedule VI topical drugs to be administered under his direction and supervision by either a dental hygienist or by an authorized agent of the dentist.

This section shall not prevent the administration of drugs by a person who has satisfactorily completed a training program for this purpose approved by the Board of Nursing and who administers such drugs in accordance with a physician's instructions pertaining to dosage, frequency, and manner of administration, and in accordance with regulations promulgated by the Board of Pharmacy relating to security and record keeping, when the drugs administered would be normally self-administered by (i) a resident of a facility licensed or certified by the State Mental Health, Mental Retardation and Substance Abuse Services Board; (ii) a resident of any assisted living facility which is licensed by the Department of Social Services; (iii) a resident of the Virginia Rehabilitation Center for the Blind and Vision Impaired; (iv) a resident of a facility approved by the Board or Department of Juvenile Justice for the placement of children in need of services or delinquent or alleged delinquent youth; (v) a program participant of an adult day-care center licensed by the Department of Social Services; or (vi) a resident of any facility authorized or operated by a state or local government whose primary purpose is not to provide health care services.

In addition, this section shall not prevent the administration of drugs by a person who administers such drugs in accordance with a physician's instructions pertaining to dosage, frequency, and manner of administration and with written authorization of a parent, and in accordance with school board regulations relating to training, security and record keeping, when the drugs administered would be normally self-administered by a student of a Virginia public school. Training for such persons shall be accomplished through a program approved by the local school boards, in consultation with the local departments of health.

Nothing in this title shall prohibit the administration of normally self-administered oral or topical drugs by unlicensed individuals to a person in his private residence.

This section shall not interfere with any prescriber issuing prescriptions in compliance with his authority and scope of practice and the provisions of this section to a Board agent for use pursuant to subsection G of § 18.2-258.1. Such prescriptions issued by such prescriber shall be deemed to be valid prescriptions.

Nothing in this title shall prevent dialysis care technicians, in the ordinary course of their duties in a Medicare-certified renal dialysis facility, from administering heparin, topical needle site anesthetics, dialysis solutions and sterile normal saline solution for the purpose of facilitating renal dialysis treatment, provided such administration of medications occurs under the orders of a licensed physician and under the immediate and direct supervision of a licensed registered nurse. The dialysis care technician administering the medications must have been trained in renal dialysis practices and procedures by a licensed nurse, and must have demonstrated competency as evidenced by satisfactory completion of a training program in accordance with the Core Curriculum for the Dialysis Technician, also known as the Amgen Core Curriculum, or a comparable education and training curriculum.

(Code 1950, § 54-497; 1956, c. 225; 1970, c. 650, § 54-524.65; 1973, c. 468; 1976, cc. 358, 614; 1977, c. 302; 1978, c. 224; 1980, cc. 270, 287; 1983, cc. 456, 528; 1984, cc. 141, 555; 1986, c. 81; 1987, c. 226; 1988, c. 765; 1990, c. 309; 1991, cc. 141, 519, 524, 532; 1992, cc. 610, 760, 793; 1993, cc. 15, 810, 957, 993; 1994, c. 53; 1995, cc. 88, 529; 1996, cc. 152, 158, 183, 406, 408, 490; 1997, cc. 272, 566, 806, 906; 1998, c. 112; 1999, c. 570; 2000, cc. 135, 498, 861, 881, 935.)

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§ 54.1-3408. Professional use by practitioners.

A practitioner of medicine, osteopathy, podiatry, dentistry, or veterinary medicine or a licensed nurse practitioner pursuant to § [54.1-2957.01](#), a licensed physician assistant pursuant to § [54.1-2952.1](#), or a TPA-certified optometrist pursuant to Article 5 (§ [54.1-3222](#) et seq.) of Chapter 32 of this title shall only prescribe, dispense, or administer controlled substances in good faith for medicinal or therapeutic purposes within the course of his professional practice.

The prescribing practitioner's order may be on a written prescription or pursuant to an oral prescription as authorized by this chapter. The prescriber may administer drugs and devices, or he may cause them to be administered by a nurse, physician assistant or intern under his direction and supervision, or he may prescribe and cause drugs and devices to be administered to patients in state-owned or state-operated hospitals or facilities licensed as hospitals by the Board of Health or psychiatric hospitals licensed by the State Mental Health, Mental Retardation and Substance Abuse Services Board by other persons who have been trained properly to administer drugs and who administer drugs only under the control and supervision of the prescriber or a pharmacist or a prescriber may cause drugs and devices to be administered to patients by emergency medical services personnel who have been certified and authorized to administer such drugs and devices pursuant to Board of Health regulations governing emergency medical services and who are acting within the scope of such certification. A prescriber may authorize a certified respiratory therapy practitioner as defined in § [54.1-2954](#) to administer by inhalation controlled substances used in inhalation or respiratory therapy.

Pursuant to an oral or written order or standing protocol, the prescriber, who is authorized by state or federal law to possess and administer radiopharmaceuticals in the scope of his practice, may authorize a nuclear medicine technologist to administer, under his supervision, radiopharmaceuticals used in the diagnosis or treatment of disease.

Pursuant to an oral or written order or standing protocol issued by the prescriber within the course of his professional practice, such prescriber may authorize registered nurses and licensed practical nurses to possess (i) epinephrine for administration in treatment of emergency medical conditions and (ii) heparin and sterile normal saline to use for the maintenance of intravenous access lines.

Pursuant to a written order or standing protocol issued by the prescriber within the course of his professional practice, such prescriber may authorize, with the consent of the parents as defined in § [22.1-1](#), an employee of a school board who is trained in the administration of insulin and glucagon to assist with the administration of insulin or administer glucagon to a student diagnosed as having diabetes and who requires insulin injections during the school day or for whom glucagon has been prescribed for the emergency treatment of hypoglycemia. Such authorization shall only be effective when a licensed nurse, nurse practitioner, physician or physician assistant is not present to perform the administration of the medication.

A prescriber may authorize, pursuant to a protocol approved by the Board of Nursing, the administration of vaccines to adults for immunization, when a practitioner with prescriptive authority is not physically present, (i) by licensed pharmacists, (ii) by registered nurses, or (iii) licensed practical nurses under the immediate and direct supervision of a registered nurse. A prescriber acting on behalf of and in accordance with established protocols of the Department of Health may authorize the administration of vaccines to any person by a pharmacist or nurse when the prescriber is not



September 1, 1999, and shall be made available to local school boards for a fee not to exceed the costs of publication; and

15. To collect, store and make available nursing workforce information regarding the various categories of nurses certified, licensed or registered pursuant to § 54.1-3012.1.

(Code 1950, §§ 54-339, 54-343; 1970, c. 116; 1979, c. 5, § 54-367.11; 1982, c. 598; 1984, c. 734; 1988, c. 765; 1989, cc. 7, 278; 1990, c. 104; 1994, c. 778; 1996, c. 166; 1998, c. 458; 1999, cc. 570, 637; 2000, cc. 587, 701.)

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§ 54.1-3005. Specific powers and duties of Board.

In addition to the general powers and duties conferred in this title, the Board shall have the following specific powers and duties:

1. To prescribe minimum standards and approve curricula for educational programs preparing persons for licensure or certification under this chapter;
2. To approve programs that meet the requirements of this chapter and of the Board;
3. To provide consultation service for educational programs as requested;
4. To provide for periodic surveys of educational programs;
5. To deny or withdraw approval from educational programs for failure to meet prescribed standards;
6. To provide consultation regarding nursing practice for institutions and agencies as requested and investigate illegal nursing practices;
7. To keep a record of all its proceedings;
8. To certify and maintain a registry of all certified nurse aides and to promulgate regulations consistent with federal law and regulation. The Board shall require all schools to demonstrate their compliance with § 54.1-3006.2 upon application for approval or reapproval, during an on-site visit, or in response to a complaint or a report of noncompliance. The Board may impose a fee pursuant to § 54.1-2401 for any violation thereof. Such regulations may include standards for the authority of licensed practical nurses to teach nurse aides;
9. To approve programs that entitle professional nurses to be registered as clinical nurse specialists and to prescribe minimum standards for such programs;
10. To maintain a registry of clinical nurse specialists and to promulgate regulations governing clinical nurse specialists;
11. Expired.
12. To certify and maintain a registry of all certified massage therapists and to promulgate regulations governing the criteria for certification as a massage therapist and the standards of professional conduct for certified massage therapists;
13. To promulgate regulations for the delegation of certain nursing tasks and procedures not involving assessment, evaluation or nursing judgment to an appropriately trained unlicensed person by and under the supervision of a registered nurse, who retains responsibility and accountability for such delegation;
14. To develop and revise as may be necessary, in coordination with the Boards of Medicine and Education, guidelines for the training of employees of a school board in the administration of insulin and glucagon for the purpose of assisting with routine insulin injections and providing emergency treatment for life-threatening hypoglycemia. The first set of such guidelines shall be finalized by



25. Any person working as a health assistant under the direction of a licensed medical or osteopathic doctor within the Department of Corrections, the Department of Juvenile Justice or local correctional facilities;

26. Any employee of a school board, authorized by a prescriber and trained in the administration of insulin and glucagon, when, upon the authorization of a prescriber and the written request of the parents as defined in § 22.1-1, assisting with the administration of insulin or administering glucagon to a student diagnosed as having diabetes and who requires insulin injections during the school day or for whom glucagon has been prescribed for the emergency treatment of hypoglycemia; or

27. Any practitioner of the healing arts or other profession regulated by the Board from rendering free health care to an underserved population of Virginia who (i) does not regularly practice his profession in Virginia, (ii) holds a current valid license or certificate to practice his profession in another state, territory, district or possession of the United States, (iii) volunteers to provide free health care to an underserved area of this Commonwealth under the auspices of a publicly supported all volunteer, nonprofit organization with no paid employees that sponsors the provision of health care to populations of underserved people throughout the world, (iv) files a copy of the license or certification issued in such other jurisdiction with the Board, (v) notifies the Board at least fifteen days prior to the voluntary provision of services of the dates and location of such service, and (vi) acknowledges, in writing, that such licensure exemption shall only be valid, in compliance with the Board's regulations, during the limited period that such free health care is made available through the volunteer, nonprofit organization on the dates and at the location filed with the Board. The Board may deny the right to practice in Virginia to any practitioner of the healing arts whose license or certificate has been previously suspended or revoked, who has been convicted of a felony or who is otherwise found to be in violation of applicable laws or regulations.

(Code 1950, §§ 54-273, 54-274, 54-276 through 54-276.6; 1950, pp. 98, 110; 1954, c. 556; 1958, c. 161; 1960, c. 268; 1962, cc. 127, 394; 164, c. 317; 1966, c. 657; 1970, c. 69; 1973, cc. 105, 514, 529; 1975, cc. 508, 512; 1976, c. 15; 1977, c. 127; 1980, c. 157; 1981, c. 300; 1982, c. 220; 1985, cc. 303, 347, 372; 1986, cc. 377, 439; 1987, cc. 522, 543; 1988, c. 765; 1992, cc. 412, 414; 1994, c. 787; 1995, cc. 509, 777; 1996, cc. 775, 779, 937, 980; 1998, cc. 630, 803, 854; 1999, cc. 570, 814; 2000, cc. 688, 814; 2001, cc. 235, 237, 533; 2002, c. 740.)

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13. Any person from the rendering of first aid or medical assistance in an emergency in the absence of a person licensed to practice medicine or osteopathy under the provisions of this chapter;
14. The practice of the religious tenets of any church in the ministration to the sick and suffering by mental or spiritual means without the use of any drug or material remedy, whether gratuitously or for compensation;
15. Any legally qualified out-of-state or foreign practitioner from meeting in consultation with legally licensed practitioners in this Commonwealth;
16. Any practitioner of the healing arts licensed or certified and in good standing with the applicable regulatory agency in another state or Canada when that practitioner of the healing arts is in Virginia temporarily and such practitioner has been issued a temporary license or certification by the Board from practicing medicine or the duties of the profession for which he is licensed or certified (i) in a summer camp or in conjunction with patients who are participating in recreational activities, (ii) while participating in continuing educational programs prescribed by the Board, or (iii) by rendering at any site any health care services within the limits of his license, voluntarily and without compensation, to any patient of any clinic which is organized in whole or in part for the delivery of health care services without charge as provided in § 54.1-106;
17. The performance of the duties of any commissioned or contract medical officer, or podiatrist in active service in the army, navy, coast guard, marine corps, air force, or public health service of the United States while such individual is so commissioned or serving;
18. Any masseur, who publicly represents himself as such, from performing services within the scope of his usual professional activities and in conformance with state law;
19. Any person from performing services in the lawful conduct of his particular profession or business under state law;
20. Any person from rendering emergency care pursuant to the provisions of § 8.01-225;
21. Qualified emergency medical services personnel, when acting within the scope of their certification, and licensed health care practitioners, when acting within their scope of practice, from following Durable Do Not Resuscitate Orders issued in accordance with § 54.1-2987.1 and Board of Health regulations, or licensed health care practitioners from following any other written order of a physician not to resuscitate a patient in the event of cardiac or respiratory arrest;
22. Any commissioned or contract medical officer of the army, navy, coast guard or air force rendering services voluntarily and without compensation while deemed to be licensed pursuant to § 54.1-106;
23. Any provider of a chemical dependency treatment program who is certified as an "acupuncture detoxification specialist" by the National Acupuncture Detoxification Association or an equivalent certifying body, from administering auricular acupuncture treatment under the appropriate supervision of a National Acupuncture Detoxification Association certified licensed physician or licensed acupuncturist;
24. Any employee of any assisted living facility who is certified in cardiopulmonary resuscitation (CPR) acting in compliance with the patient's individualized service plan and with the written order of the attending physician not to resuscitate a patient in the event of cardiac or respiratory arrest;

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**Insulin Injection Training**

Employee Receiving Training: \_\_\_\_\_

School Division: \_\_\_\_\_

School: \_\_\_\_\_

PERFORMANCE CRITERIA		DATE:	INITIALS OF EVALUATOR:
1.	Describes situations that insulin is necessary. States storage and security of insulin and syringes and medical supplies.		
2.	Locates student's care plan and determines correct insulin dose and time insulin is to be administered.		
3.	States 5 "Rights" of medication administration.		
4.	Accurately measures insulin dose. Practice of 2 units, 5 units, 7 units.		
5.	Locates injection site to be used.		
6.	Demonstrates accurate injection technique.		
7.	States precautions to take after insulin is administered.		
8.	Discuss proper disposal of medical supplies.		

Trainer/Evaluator (signature): \_\_\_\_\_ Date: \_\_\_\_\_

Employee (signature): \_\_\_\_\_ Date: \_\_\_\_\_

**Hypoglycemia & Glucagon Training**

Employee Receiving Training: \_\_\_\_\_

School Division: \_\_\_\_\_

School: \_\_\_\_\_

PERFORMANCE CRITERIA		DATE:	INITIALS OF EVALUATOR:
1.	Describes symptoms of hypoglycemia.		
2.	Discuss appropriate treatment for mild to moderate hypoglycemia.		
3.	States situations when glucagon emergency kit should be used.		
4.	Accurately mixes and withdraws glucagon from vial.		
5.	Locates injection site to be used.		
6.	Demonstrates accurate injection technique.		
7.	Lists precautions to take when using glucagon. Turn on side. Check MD order for dose. Activate 911 and call school nurse and parents.		
8.	Discuss that when child is able to swallow food or fluids should be given to prevent recurrent hypoglycemia.		

**REMEMBER GLUCAGON CANNOT BE GIVEN THROUGH CLOTHING.**

Trainer/Evaluator (signature): \_\_\_\_\_ Date: \_\_\_\_\_

Employee (signature): \_\_\_\_\_ Date: \_\_\_\_\_

IEP Yes No Individualized Health Care Plan Plt County Schools Date Written EAP Yes No

Student's Name \_\_\_\_\_ DOB \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_ Teacher \_\_\_\_\_ Grade \_\_\_\_\_ Diagnosis: Type I DIABETES

Health Care Provider: \_\_\_\_\_ Phone: \_\_\_\_\_ Allergies: \_\_\_\_\_ Insulin Routine \_\_\_\_\_

Medical History \_\_\_\_\_ Diet Type/Restrictions: \_\_\_\_\_ Mobility: \_\_\_\_\_

<b>Nursing Assessment Summary:</b>		<b>Nursing Diagnosis(es):</b>
Child is ___ yr. old ___ Dx with IDDM diagnosed at age ___ and is under the care of Dr. _____. Summary		___ 1. Effective management of therapeutic regime ___ 2. Ineffective Management of therapeutic regime R/T ___ 3.
<b>Family Contact:</b>	<b>Phone:</b>	<b>Parent/Guardian Signature:</b>

Outcome Criteria (Who, what, when, how)	Interventions (nurse, student, delegated staff)	Evaluation	Review Date
1. _____ will test blood glucose at _____ a.m. & _____ p.m. & _____ and as needed	1. School Health Specialist will train ___ staff members; ___ student to perform blood glucose test, read, and document results.	1. Student observed & approved Staff observed & approved Names:	Dist. / /
2. _____ will administer insulin as described on EAP by MD order.	2. School Health Specialist will train ___ staff Members; ___ student to draw up administer, and document each insulin administration on Diabetic Med Log.	2. 2. Student observed & approved Staff observed & approved Names:	
3. Blood glucose levels and insulin administrations will be documented on medication log by approved staff.	3. Nurse (SHS) will approve staff training Record and maintain on file. Nurse will audit Med Log weekly / monthly	3. Training record on file with SHS _____ RN	
4. Student and staff will be alert for signs of <b>Insulin shock: SHAKING, SWEATING, HUNGER, CONFUSION, DROWSINESS</b> <b>High Blood Sugar: THIRST, DRY SKIN, PAIN IN ABDOMEN, NAUSEA, FAST BREATHING</b> and follow EAP instructions.	4. School staff will observe for signs of Insulin Shock (hyper glycemia and High Blood Sugar (hypoglycemia) – and follow students' Emergency Action Plan (EAP)	4. Student verbalized s & s Staff verbalized s & s Names: EAP prepared and attached to IHP and distributed as indicated	
5. Staff will contact parent if: _____	5. Parent Guardian will leave emergency contact number(s) with school	5. Parent/guardian reviewed IHP & IEP Parent/guardian signed IHP	
6. Student will eat: _____	6. Staff will follow MD diet and emergency Food plans		
7. Staff will contact 911 if child unresponsive			

IHP Distributed to 1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_ 5) \_\_\_\_\_ RN, School Health Specialist  
CgC.10 970

If the child has difficulty swallowing or refuses to swallow, honey or syrup may be given and tell the child to swallow. If unable to swallow cake icing or instant glucose may be put between the gum and cheek.

4. If improvement does not occur within 10 minutes, re-check the blood sugar. If below \_\_\_\_\_ repeat the feeding. If no improvement is seen then, call the parent or physician.
5. When the student improves, a snack such as peanut butter or cheese and crackers should be provided. If near lunch, his or she should go ahead and eat.
6. Resume normal activity.
7. Notify parents by phone or through use of a notebook.
8. Document time and blood sugar reading of those monitored in clinic.
9. If at any point the student is unresponsive, or has seizures, the rescue squad should be notified.

Date Prepared: \_\_\_\_\_ Nurse \_\_\_\_\_

Annual Review is due: \_\_\_\_\_

Date: \_\_\_\_\_ Comments: \_\_\_\_\_

\_\_\_\_\_  
Physician

\_\_\_\_\_  
Physician's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Parent's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
School Official Signature

\_\_\_\_\_  
Date



## VIRGINIA SCHOOL HEALTH GUIDELINES

### Authorization/Parental Consent for Administering Medication

(Use a separate authorization form for each medication.)

Student's Last Name \_\_\_\_\_, First Name \_\_\_\_\_, M.I. \_\_\_\_\_  
 Student Number \_\_\_\_\_ Grade \_\_\_\_\_ Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Allergies \_\_\_\_\_

#### Parental Consent

I am the parent or guardian of \_\_\_\_\_. I give my permission for him/her to take the following prescribed medication while in \_\_\_\_\_ School. I hereby acknowledge that I have read and understood the School Board Regulations relating to the taking of medications. I hereby release \_\_\_\_\_ School and its employees from any claims or liability connected with its reliance on this permission and agree to indemnify, defend and hold them harmless from any claim or liability connected with such reliance. I authorize a representative of the school to share information regarding this medication with the above licensed prescriber.

Parent/Guardian Signature \_\_\_\_\_

Daytime Phone \_\_\_\_\_

Date \_\_\_\_\_

#### MEDICATION AUTHORIZATION

(For Use By Licensed Prescriber ONLY)

Relevant Diagnosis \_\_\_\_\_ Medication \_\_\_\_\_

Dates medication must be administered at school: \_\_\_\_\_ Short Term (List dates to be given \_\_\_\_\_)

\_\_\_\_\_ Every day at school \_\_\_\_\_ Episodic/Emergency Events ONLY

Dosage (Amount) \_\_\_\_\_ Route \_\_\_\_\_ Form \_\_\_\_\_ Time(s) of Day \_\_\_\_\_

A. Serious reactions can occur if the medication is not given as prescribed: YES NO

If yes, describe:

B. Serious reactions/adverse side effects from this medication may occur: YES NO

If yes, describe:

Action/Treatment for reactions: \_\_\_\_\_

Report to you: YES NO (Drug information sheet may be attached.)

Special Handling Instructions: \_\_\_\_\_ Refrigeration \_\_\_\_\_ Keep out of sunlight \_\_\_\_\_ Other \_\_\_\_\_

#### Asthmatic/Diabetic ONLY

This student is both capable and responsible for self-administering this medication:

NO YES - Supervised YES - Unsupervised

This student may carry this medication: NO YES

Licensed Prescriber's Name \_\_\_\_\_

Telephone Number \_\_\_\_\_ Emergency Number \_\_\_\_\_

Licensed Prescriber's Signature \_\_\_\_\_ Date \_\_\_\_\_



Program for Regional Diabetes Education(P.R.I.D.E.)	Sentara Hampton General	Hampton, VA
Program for Regional Integrated Diabetes Education(P.R.I.D.E.)	Sentara Health System	Virginia Beach, VA
Program for Regional Diabetes Education(P.R.I.D.E.)	Sentara Leigh Hospital	Norfolk, VA
Diabetes Management Program	Valley Health System	Winchester, VA
Diabetes Education Program at the Diabetes Treatment Center	Virginia Beach General Hospital	Virginia Beach, VA

*American Diabetes Association, September 1999*  
*(on-line) <http://www.ada.org>*  
*(Last updated August 5, 1999)*

# Appendix I

The following diabetes education programs in your area are recognized by the American Diabetes Association. These Resource programs meet the National Standards for excellence in diabetes education.

PROGRAM	FACILITY	CITY/STATE
AHC: Living Well With Diabetes Center for Diabetes Self-Management	Augusta Health Care, Inc	Fishersville, VA
Diabetes Education Program of Children's Hospital	Bonsecours St. Mary's Hospital	Richmond, VA
Diabetes Self-Management Center	Carilion Roanoke Memorial Hospital	Roanoke, VA
The Diabetes Education Program	Chesapeake General Hospital	Chesapeake, VA
Diabetes Education Program	Children's Hospital	Richmond, VA
Diabetes Education Program of Children's Hospital	Chippenham Hospital	Richmond, VA
Outpatient Self-Management Program at The Diabetes Care Center	Chippenham Medical Center/Johnston-Willis Hospital	Richmond, VA
The Diabetes Management Program	Cumberland Hospital for Children and Adolescents	New Kent, VA
Diabetes Education Program	Danville Regional Medical Center	Danville, VA
Diabetes Education Program	Department of Veteran's Affairs Medical Center	Hampton, VA
Diabetes Education Program	Dept. of Veterans Affairs Medical Center	Salem, VA
The Diabetes Education Management Program	Diabetes Management Program Warren Memorial Hospital	Front Royal, VA
The Diabetes Institutes Outpatient Education Program	Eastern Virginia Medical School	Norfolk VA

CHESTERFIELD COUNTY PUBLIC SCHOOLS  
CHESTERFIELD COUNTY HEALTH DEPARTMENT  
SCHOOL HEALTH SERVICES

## STANDARD HEALTH/EMERGENCY PLAN FOR HYPERGLYCEMIA

PROBLEM: High Blood Sugar

## SYMPTOMS:

Thirst, frequent urination, flushed face, red dry skin, rapid breathing, loss of appetite, nausea, confusion. High blood sugars are generally not an emergency unless the student is vomiting or semiconscious. Bathroom privileges should be readily available because of thirst and frequent urination. If these behaviors are noted, the teacher should notify the clinic or the parent by phone or a notebook. Insulin may need to be adjusted.

## INTERVENTIONS/EQUIPMENT NEEDED

1. Check the student's blood sugar using his or her glucose monitoring device, or the school's Glucoscan (see Glucoscan procedure). The student may do their own blood sugar with supervision and permission from their physician.
2. Contact the -parent or physician if equipment is not available to check the blood sugar. A feeding should not automatically be given if the student seems to be having signs of high blood sugar.

## TREATMENT

3. If blood sugar is above \_\_\_\_\_, contact the parent or physician.
4. If the student is vomiting or is groggy and unresponsive, the rescue squad and parent should be notified immediately.
5. Document blood sugars done in clinic,

Date prepared: \_\_\_\_\_ PHN: \_\_\_\_\_

\_\_\_\_\_  
Physician\_\_\_\_\_  
Physician's Signature\_\_\_\_\_  
Date\_\_\_\_\_  
Parent's Signature\_\_\_\_\_  
Date

When an emergency occurs:

1. Call or designate someone to call the school nurse, or if school nurse is unavailable, notify principal.
2. If the emergency is life threatening, immediately call Rescue Squad/911.
3. Stay with the student or designate another adult to do so.
4. Call or designate someone to call a parent.
5. For each of the above phone calls state:
  - a. Who you are.
  - b. Where you are.
  - c. What the problem is.
6. The following school employees are trained in emergency first aid and CPR:


Plan prepared by: \_\_\_\_\_

Date: \_\_\_\_\_

Review dates: \_\_/\_\_/\_\_, \_\_/\_\_/\_\_, \_\_/\_\_/\_\_

I have reviewed and agree with this emergency plan:

Parent/guardian: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

*This is confidential information. Share only on a need-to-know basis.*

*Parent Name: \_\_\_\_\_*

## EMERGENCY CARE PLAN

MEDICAL CONDITION: DIABETESStudent: \_\_\_\_\_ DOB:   /  /   Student # \_\_\_\_\_

School: \_\_\_\_\_ Grade: \_\_\_\_\_ Counselor: \_\_\_\_\_

Parent/Guardian: \_\_\_\_\_ Home Phone: \_\_\_\_\_

Work Phone (Mother): \_\_\_\_\_ Work Phone (Father): \_\_\_\_\_

Address: \_\_\_\_\_

Emergency Contact #1: \_\_\_\_\_ Phone: \_\_\_\_\_

Emergency Contact #2: \_\_\_\_\_ Phone: \_\_\_\_\_

Primary Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Specialist Physician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Medications: \_\_\_\_\_

ALLERGIES: \_\_\_\_\_

## Student Specific Emergency:

IF YOU SEE THIS	DO THIS
Low Blood Sugar <ul style="list-style-type: none"> <li>• Headache</li> <li>• Shakiness</li> <li>• Sweaty, pale skin</li> <li>• Drowsiness</li> <li>• Staggering</li> <li>• Poor coordination</li> <li>• Bad temper/anger</li> <li>• Confusion</li> <li>• Disorientation</li> </ul>	<ol style="list-style-type: none"> <li>1. If student can swallow, give student's snack.</li> <li>2. If student's snack is not available, give one fruit exchange.               <ul style="list-style-type: none"> <li>• 3 teaspoons sugar</li> <li>• ½ cup of orange juice</li> <li>• 1/3 cup of apple juice</li> <li>• 1/3 cup soda, preferable lemon-lime (not diet)</li> </ul> </li> <li>3. Call or designate someone to call the school nurse.</li> <li>4. If glucometer is available, test blood sugar.</li> <li>5. If low blood sugar symptoms persist after 10-15 minutes, give another fruit exchange. Repeat every 10-15 minutes until symptoms subside.</li> <li>6. If treatment is not effective and condition worsens, call 911.</li> <li>7. Call parent</li> </ol>

Note: The onset of hypoglycemia (low blood sugar) is usually sudden. If left untreated, this condition can quickly become life threatening.











# HYPOGLYCEMIA

## (Low Blood Glucose)

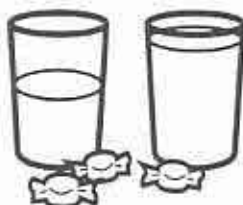
**Causes:** Too little food, too much insulin or diabetes medicine, or extra activity.

**Onset:** Sudden, may progress to insulin shock.

### SYMPTOMS

	
SHAKING	FAST HEARTBEAT
	
SWEATING	DIZZINESS
	
ANXIOUS	HUNGER
	
IMPAIRED VISION	WEAKNESS FATIGUE
	
HEADACHE	IRRITABLE

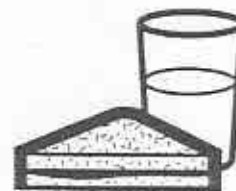
**WHAT  
CAN  
YOU  
DO?**



Drink 1/2 glass of juice or regular soft drink, or 1 glass of milk, or eat some soft candies (not chocolate).



Within 20 minutes after treatment  
**TEST BLOOD GLUCOSE.**  
If symptoms don't stop, call your doctor



Then, eat a light snack (1/2 peanut butter or meat sandwich and 1/2 glass of milk).

**Treatment may vary with different medications.**

# HYPERGLYCEMIA

## (High Blood Glucose)

**Causes:** Too much food, too little insulin or diabetes medicine, illness or stress.

**Onset:** Gradual, may progress to diabetic coma.



**EXTREME THIRST**

## SYMPTOMS



**FREQUENT URINATION**



**DRY SKIN**



**HUNGER**



**BLURRED VISION**



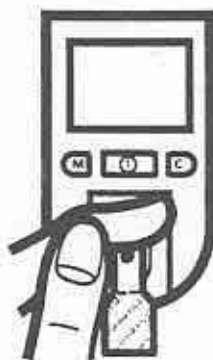
**DROWSINESS**



**DECREASED HEALING**

**WHAT  
CAN  
YOU  
DO?**

**TEST  
BLOOD  
GLUCOSE**



If over  
200 mg/dL  
for several  
tests or for  
2 days

**CALL YOUR DOCTOR**



Glucagon Injection Procedure	
Essential Steps	Key Points and Precautions
If Glucagon is needed, send someone to call 911, and then call the school nurse and the parents.	
Place the student on his or her side, ensuring drainage of secretions or vomitus, should vomiting occur.	
Prepare a Glucagon syringe: <ul style="list-style-type: none"> <li>• Remove the needle cover and vial cap.</li> <li>• Inject the entire contents of the syringe into the vial.</li> <li>• With the needle remaining in the vial, rotate the vial gently until the solution is clear.</li> <li>• Pull back on the plunger to withdraw all the solution into the syringe.</li> </ul>	<p><b>Glucagon must be kept in the same place all the time with notices posted of the location.</b></p> <p><b>It is CRITICAL that staff caring for this student in an emergency situation know where the Glucagon is stored.</b></p> <p><b>If Glucagon vial and syringe are separate then must be taped together for ease in locating.</b></p>
Administer the Glucagon:  Expose and cleanse the injection site (upper, outer area of the thigh, buttock upper arm).	Injection is usually given intramuscularly. It may be given subcutaneously however; the absorption rate is slower.
If the student awakens and is able to swallow, give sips of clear REGULAR soda or other non-diet soda equaling 3 to 6 ounces (120 to 180 ml).	Nausea and vomiting may occur as effects of Glucagon or extreme hypoglycemia. Juices may aggravate nausea. Providing a clear regular soda or other non-diet soda is preferred.
Assist paramedics as needed.	
Record the procedure.	Glucagon can be given through clothing if necessary

To be used for laminating if desired.